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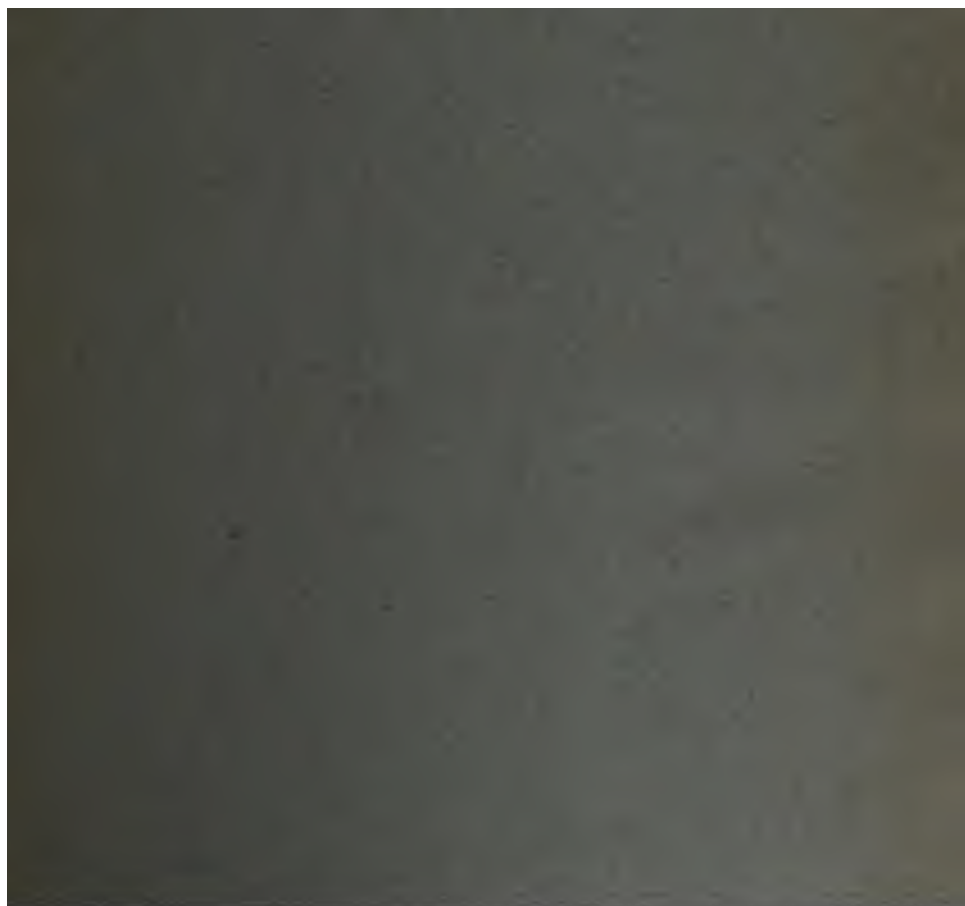
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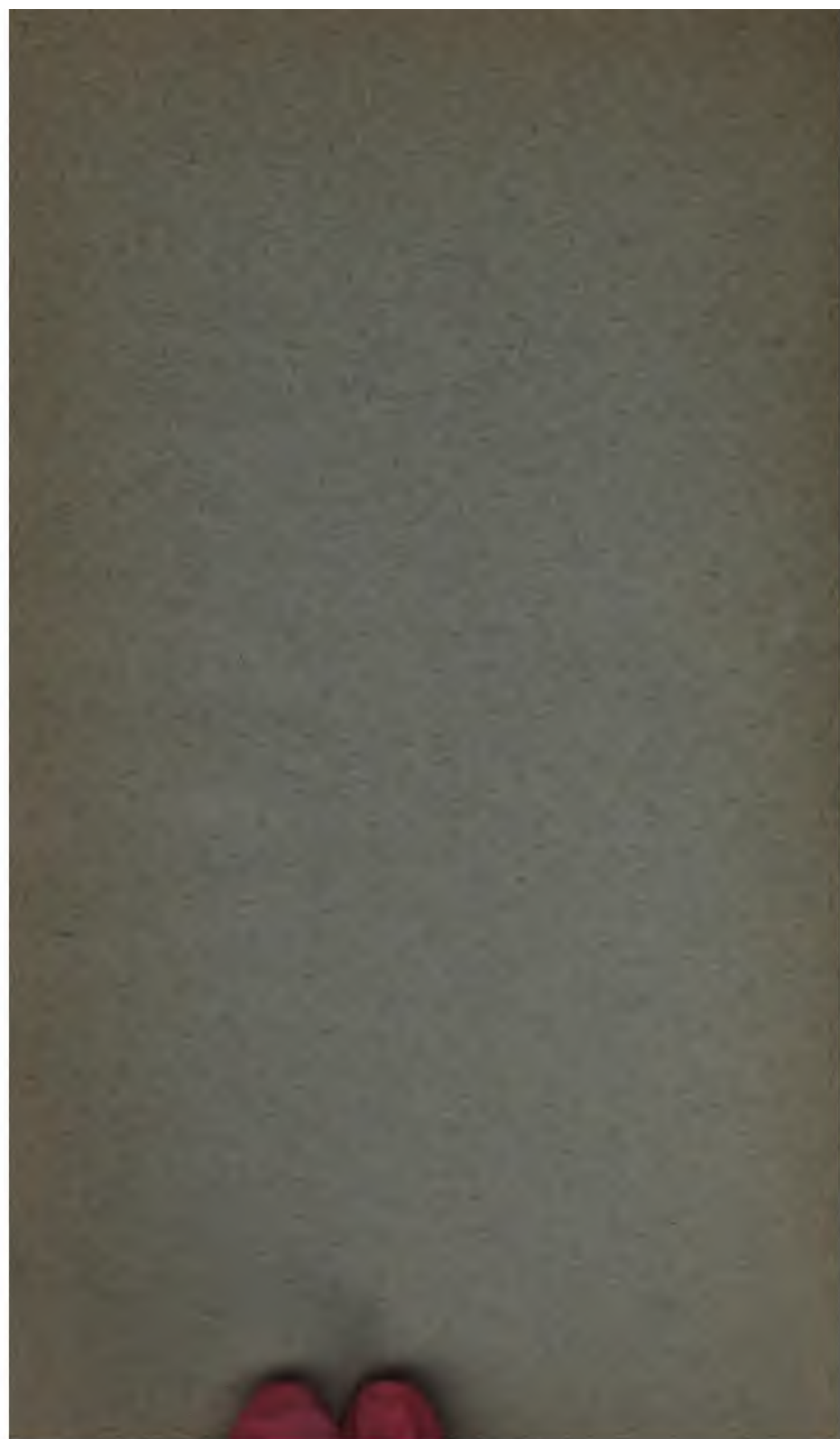
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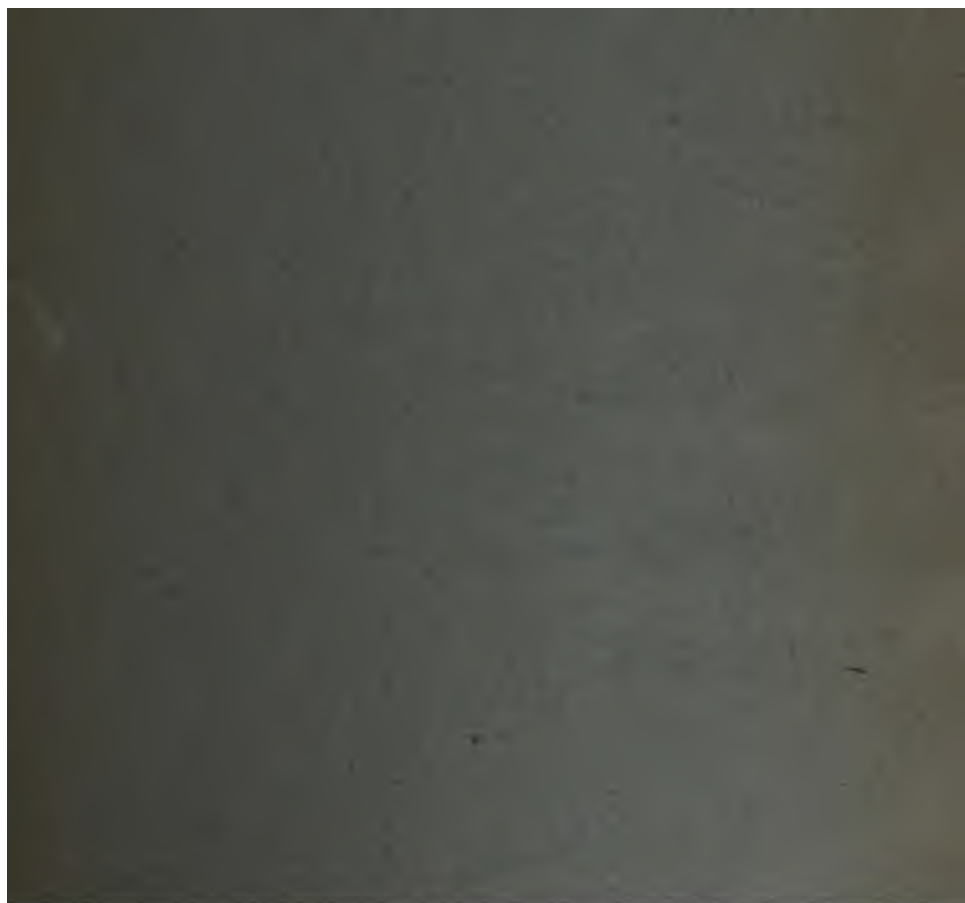
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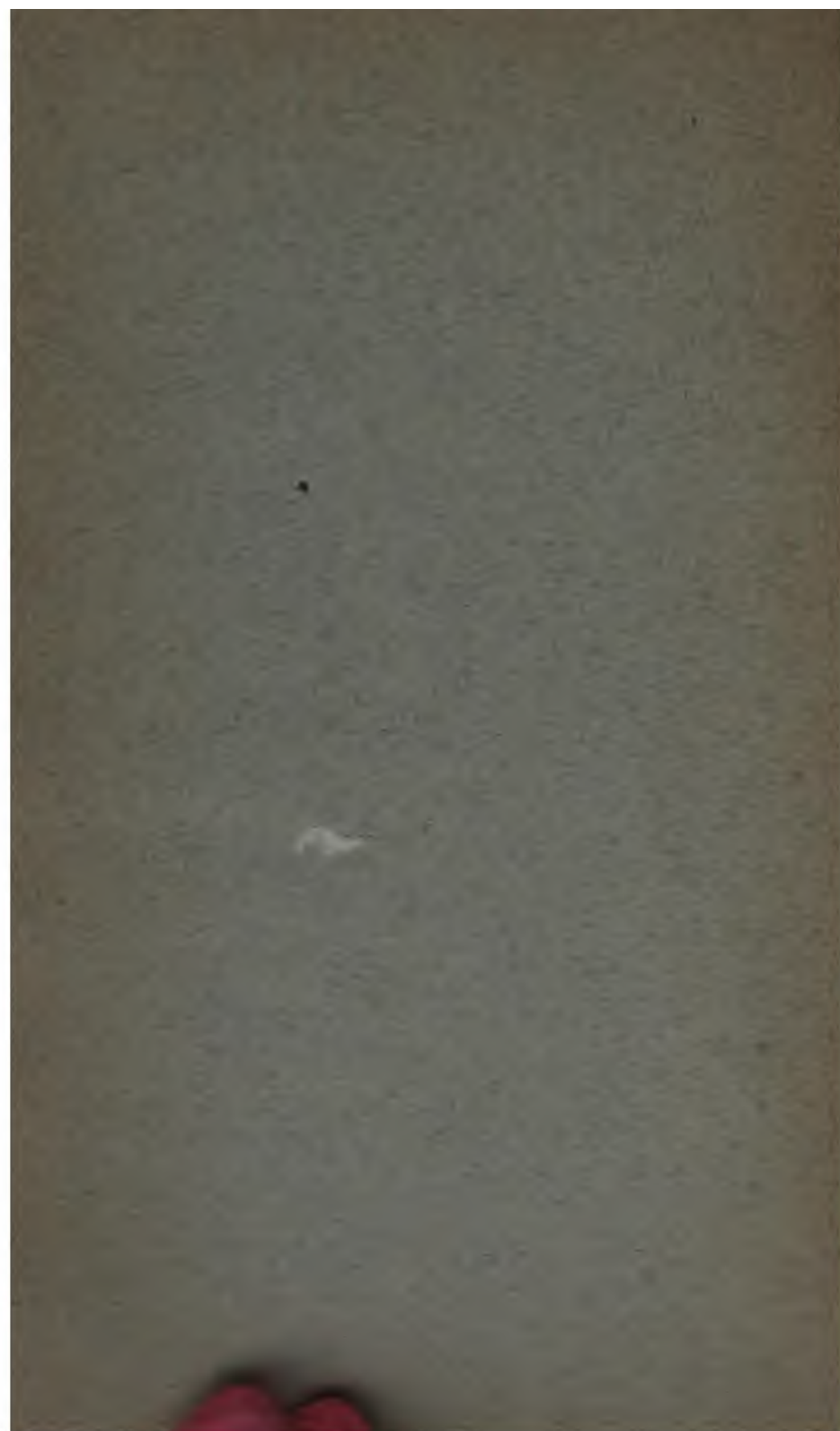
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NORTH CAROLINA
MEDICAL JOURNAL.

EDITORS:
THOMAS F. WOOD, M.D.,
GEO. GILLETTH THOMAS, M.D.

Volumes XVII and XVIII.

WILMINGTON, N. C.:
JACKSON & BELL, WATER-POWER PRESSES,
1886.

LIST OF CONTRIBUTORS.

Prof. Middleton Michel, M.D.....	Charleston, S. C.
R. J. Levis, M.D.....	Philadelphia, Pa.
R. L. Payne, M.D.....	Lexington, N. C.
E. P. Hurd, M.D.....	Newburyport, Mass.
W. J. H. Bellamy, M.D.....	Wilmington, N. C.
J. W. McNeill, M.D.....	Fayetteville, N. C.
W. T. Cheatham, M.D.....	Henderson, N. C.
Prof. Theophilus Parvin, M.D.....	Philadelphia, Pa.
Kenneth M. Ferguson, M.D.....	Cameron, N. C.
W. W. Lane, M.D.....	Wilmington, N. C.
B. M. Cromwell, M.D.....	Eckhart Mines, Md.
Joseph Graham, M.D.....	Charlotte, N. C.
Cornelius Kollock, A.M., M.D.....	Cheraw, S. C.
Kemp P. Battle, M.D.....	Raleigh, N. C.
W. T. Paul, M.D.....	Atlantic, N. C.
W. L. Crump, M.D.....	South River, N. C.
S. D. Booth, M.D.....	Oxford, N. C.
J. D. Roberts, M.D.....	Goldsboro, N. C.
E. H. Hornaday, M.D.....	Willow Green, N. C.
R. L. Payne, Jr., M.D.....	Lexington, N. C.
Samuel Westray Battle, M.D.....	Asheville, N. C.
Wm. H. Bobbitt, M.D.....	Raleigh, N. C.
George W. Long, M.D.....	Graham, N. C.
S. S. Satchwell, M.D.....	Rocky Point, N. C.
N. M. McLean, M.D.....	Gibson's Stat'n, N. C.

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NORTH CAROLINA MEDICAL JOURNAL.

THOMAS F. WOOD, M. D., Editor.

Number 1. Wilmington, January, 1886. Vol. 17.

ORIGINAL COMMUNICATIONS.*

REPORT OF A RESECTION OF LOWER END OF RADIUS, CONSEQUENT UPON A GUNSHOT WOUND— PRESERVATION OF THE HAND.

By Prof. MIDDLETON MICHEL, M.D., of Charleston, S. C.

Attempt at preservation of the hand by resection of the lower end of the radius was made for the first time over one hundred and twenty years ago, and though frequently repeated had not met with universal favor. The verdict of military surgery, based upon statistics of considerable magnitude, is against resection of either radius or ulna in gunshot wounds of the wrist; for the aggregate mortality is greater than where the expectant conservative treatment has been resorted to; and again, even where recovery ensues, the hopeless deformity and absolute uselessness of the hand which results, necessitate subsequent amputation.

The ablation of a hand, but especially the right hand, is so great a calamity, that we may profitably consider the following instance in which conservative surgery stands contrasted with demo-

litionary surgery; for there are few who would not accept a deformity, however great, where the veriest semblance of the functional activity of the limb may ultimately obtain.

In furnishing the history of the following case I am permitted to rescue from partial oblivion an interesting case that has not escaped wholly the notice of our distinguished colleague at Washington in his official capacity of historian of the surgical records of our civil war, as I find that he has tabulated it among "Excisions in Forearm of Uncertain Date," Vol. II. p. 964.

This short history would have been published long since, had not my notes, supposed to have been lost, been accidentally discovered only recently; and at once reminded me of my indebtedness to a friend, Dr. H. D. Schmidt, now of New Orleans, who obtained the specimen of bone from the soldier himself in whose possession it was; making at the time the beautiful drawing of arm and hand that accompanies this article.

Richard Berry, pt. 5th Louisiana, age 34, was shot at the battle of Sharpsburg by two balls, compromising both ulna and radius. One ball struck the ulna a half inch above its styloid process, fracturing this bone, passing through the radius, which it completely fractured; the second ball passed also through both bones, entering the ulna about two inches above the joint, producing additional fractures. As neither ulna nor radial arteries were injured, though the comminuted fractures were considerable, it appears that it was determined to treat the case upon the expectant conservative plan. The hand and arm were put up in splints, leaving the wounds so exposed as to be properly watched and dressed. Cold water applications were at first resorted to until suppuration supervened, when warm poultices were used; small spiculæ of bone being occasionally removed so often as they appeared at either wound; reactionary fever ensued that soon disappeared, but suppuration continued for more than five months; the ulna became consolidated, while the ununited fragments of the more considerably fractured radius gradually became enclosed in an involucrum of considerable size, through the several sinæ, of which a constant discharge issued. At the expiration of six months, while in the Danville hospital, Virginia, it was determined to resect the lower end of radius, which operation was performed by Surgeon J. Ward, assisted by Surgeon W. M. Fagna. Four inches and three-quarters of the lower end of

the radius was exsected; its distal end was found partially ankylosed with the carpus, and had to be detached with care; the saw, of course, was called into requisition in detaching the piece from the shaft. The specimen presents the usual appearance of newly-formed bone, as seen in Fig. 1, taken from the bone in my private collection.

In this faithful representation may be seen two of the sinu; the general appearance of the bone, and the attempt on the part of nature to reproduce even a styloid process; the sequestra that occupied the cavity of the involucrum were unfortunately lost.

It appears that the limb must have been placed in supination and the wound after the operation healed promptly. With returning health and strength and gradual exercise of limb and hand, the patient soon entirely recovered.

The lateral motion of the wrist is lost; he can flex the fingers sufficiently to hold a pen with considerable strength. The extensors of the third, fourth and fifth fingers seem to prevail in strength over the flexors at the first and second phalanges; but the reverse is the case with the third phalanges, as will be perceived in Fig. 2.

Though the deformity is marked, especially in the enlarged ulna and the usual prominence of its styloid projection, yet the hand is of decided service to the patient.

Whatever interest may be attached to recovery in this case, with its retained and somewhat useful hand, notwithstanding the marked deformity that constantly follows this operation of exsection, yet the preservation of the continuity of the shaft, though this be even an unsightly product of new bone maintaining still a basal support for the carpus, is so desirable, that had this been our own case we would have laid open the involucrum and would have removed the sequestra, which doubtless kept up the prolonged discharge, and were possibly the only real source of troublesome delay towards recovery.

It is interesting to notice that the ball in this instance, as most frequently happens, entered the ulna, making its exit through the radius.

In the semiprone position of the arm, the natural attitude of our limb, due to the more favorable attachment of the flexors predominating over the weaker extensors; and especially the normal position during functional activity of the hand, the ulna, being then the outer bone, is far more frequently injured than the radius. Statistics of many thousand gunshot injuries of the forearm verify this fact, which I have ventured thus to account for,

As we have already intimated, the hand was placed in pronation, judging from its position after this operation, which was in our opinion eminently proper, since this secured subsequently the surest means of establishing the future probable service of the hand.

When we remember Stromyer's injunction to place the injured limb and hand on its volar side, and not in supine position, as Malgaigne, Nélaton and others invariably did, we can recognize the advantage of the fixity of tenure in pronation that ensues, as is seen in the accompanying figure. Herein rests the subsequent utility of the hand as an instrument of prehension. Permanent supination would have rendered the part valueless; an awkward encumbrance ever in the way, inviting subsequent amputation.

This patient enjoyed a certain freedom of motion that makes his hand of decided use. He flexes his fingers sufficiently to bring two of them in relation with an opposable thumb; holds a pen or pencil and writes; performing many other acts perhaps exempted from real manual labor. Yet even when force to a limited degree is to be exerted, his hand is subservient to this purpose; and as a tactile organ, still in sentient connection with a strong, flexible limb, becomes once more again inservient to most of its ordinary and temperate offices.

A biological refinement respecting the mechanism of motion in this joint ascribes a conspicuous rôle to the ulna, which I opine will never be generally accepted by those who have carefully considered its anatomical construction; we may remark, then, that the ulna forms no active part of the wrist-joint, which is essentially a radio-carpal articulation, therefore the removal of the ulna as the fixed bone of the forearm, may weaken, but cannot notably compromise, the integrity of the joint itself. The exsection of its distal end, and, indeed, the resection of the entire bone, has consequently often been successfully performed without impairment of the use of the hand in its varied movements.

The particular interest in cases of removal of the radius at its lower end, including the articular surface of the bone, consists in determining what will be the ultimate amount of benefit in the preservation of a hand whose fulcrum of motion, so to speak, has been exsected. Hence, in the case we record, while the reproduction of bone, in its continuity with the shaft would have secured a more perfect result had the sequestra alone been removed, yet it is important to note that the operation of resection of so large an extent of the radius, with its articular facet, has nevertheless preserved a hand of decided importance to the individual.

SELECTED PAPERS.

A CASE OF UTERINE FIBROMA—REMOVED—GENERAL OBSERVATIONS.

By Prof. E. YOUNKIN, M.D.

On October 20th, 1885, I arrived at Mammoth Springs, Arkansas having been requested by Dr. R. F. Jones to come prepared to operate in a case of abdominal tumor, supposed to be ovarian in character. I arrived at dark, but proceeded immediately to the examination of the patient. She was a single lady—a mere girl of sixteen years of age. She was in excellent spirits, not emaciated, and felt gratified that the time had come in which she might try what prospects there were in an operation. Indeed, she had the great dangers of an operation fully laid before her, but she remarked that “it is death as it is, and if there is one ray of hope in an operation” she wanted that chance.

I found the abdomen enormously distended. The neoplasm could be felt beneath the abdominal walls, round and uniform throughout ; no nodules or prominences. The mass seemed dense, though apparently slight fluctuation in some of its parts. The ends of the fingers could be pressed around its borders along the sides, and traced upwards over the stomach and downwards towards the uterus. It could be pushed but slightly to either side, but not upwards or downwards. Some adhesions were recognized, and these, it were thought, might be considerable. The umbilical region was quite prominent, and the enlargement extended still upward, though respiration was not materially disturbed. Digital examination proved the girl's virginity. The uterus was normal in size and position, and it was mobile. I did not sound its cavity, but the sequel shows the cavity unchanged. Menstruation had been regular, and was unattended with any special inconvenience. The morbid growth had been observed about three years. Small at first, but had a gradual development up to the present time and to the present dimension. I was informed that it was first observed

to lie on the right side, in the region of the right ovary, though in this I now think I was misinformed. The tumor now seems equal on both sides.

For a time the girl had been the subject of much neighborhood comment, as she was suspected of being *enciente*, until a decision of doctors dispersed this impression.

From what I could gather of the case, I could find no special impediments in the way of an attempt to remove the mass, though I was careful to state that the knife often revealed things that were otherwise obscure.

The next day, under my usual antiseptic precautions, in the presence and by the assistance of Drs. Wood, Dietrich, Jones, Fisher and others, I began with an exploratory incision. Opening the peritoneum, we came to the walls of the tumor. The omentum was out of the way and adherent above. The first sight showed a glistening mass, with very large veins running their blood from above downwards toward the uterus. The size of these veins seemed as large as a Faber pencil, and were thickly set over the entire mass. I saw at once we had to deal with a tumor of great vascularity. A still further investigation showed that we had a solid mass, or nearly so, which could not be emptied and collapsed. I now enlarged the abdominal incision, cutting three inches above the umbilicus and down to the pubes. The tumor had some adhesion to the peritoneum and omentum, but these were readily broken down. Still the tumor seemed fixed in its bed. I now attempted to cut into the mass between the veins as much as possible, and tying those veins I cut, but the toughness and vascularity caused me to abandon the project of taking out the inside. Searching again for the remaining adhesion, with an assistant we raised the mass out of the abdominal wall. It was now observed to be fast to the Fallopian tubes, their whole length on either side, and having a thick peduncular attachment to the body of the womb.

So symmetrical, so round and large was the neoplasm, and so thick and short the pedicle, that its separation was attended with the greatest difficulty. I succeeded, however, in securing each side with a silver-wire ligature; after which I grasped the peduncle with a pair of clamp forceps, and divided the parts with the scissors and squarely between the tumor and the uterus. All was done without the loss of much blood. The abdominal incision was now closed.

The operation required two hours of the hardest work. The tumor weighed eighteen pounds.

The patient bore the operation well, and rallied well from the anæsthetic. Twenty hours afterwards I left for home. At that time she seemed easy, but somewhat depressed. She talked hopefully, and stated that she suffered but little pain, but she died of exhaustion thirty hours after the operation.

Spencer Wells has very justly said that "the diagnosis of uterine from ovarian tumors is a difficulty which frequently arises in practice, which may often be solved with great ease, which as often requires much cautious investigation, and which in some can only be cleared up by an exploratory incision."

Lizars opened the abdomen for an ovarian and found a large uterine tumor. The first of Dr. Granville's operations in London is supposed to be ovarian, but proved to be uterine. "In fact," says Wells, "it has happened to many surgeons, and to myself among the number, that we have commenced operations as ovariectomy, and even removed tumors from the abdomen, under the impression that we were dealing with diseased ovaries, when, upon examination, they have proved to be pedunculated fibroid outgrowths from the uterus." Again, the same writer says: "I have recorded cases where I removed large uterine tumors containing solid fibroid masses many pounds in weight, and cyst-like cavities containing more than twenty pints of fluid, these tumors being so far pedunculated outgrowths from the peritoneal surface that the mobility of the cervix uteri was free, and no enlargement of the uterine cavity could be detected by the sound."

The above case proves quite conclusively that uterine tumors, as well as ovarian, may lead to very great enlargement of the abdomen, even though we are often told by men of experience that a tumor must be ovarian because it is too large to be uterine; and, from my own experience, I can add that uterine tumors may be either regular or irregular, smooth or lobulated, round or ovoid; hard, elastic or fluctuating; either tender or insensible to pressure; adhering or not adhering to the abdominal walls; a depressed umbilicus or a raised umbilicus; and that there are numerous exceptions to all the rules given for the diagnosis. But in the above what else could be done? Death was inevitable in no far distant period, and numerous cases are recorded in which the removal of

the uterine tumor has saved life. Out of thirty-nine recorded cases nineteen recovered, and out of thirty-one cases of partial removal and exploratory incision twenty-six recovered. Were I ever again to deal with the same conditions I would follow the same plan, with a hope of reaping better results, for I know of nothing that promises better results in such extreme cases.—*American Medical Journal*.

HEADACHE.

By Dr. W. R. CHITTICK.

(Read before the Detroit Academy of Medicine.)

The study of headache is as interesting as it is difficult. It is a complication that we meet with in the majority of cases, and in many of them it is the most prominent symptom complained of.

The study of this trouble, by itself, has been neglected, I think, more than any other prominent disorder. If we turn to the text-books for information on the subject, we find much less than we wish we could, and when we have done with our search we can sum it all up in a very small space. This may be owing to the little importance with which some authors regard the subject, or it may be due to a want of a clear understanding of so really difficult a matter.

Headache is usually a sympathetic disorder. But there are cases where it is a prominent symptom of organic disease.

The main cause of headache is a disordered circulation, or, we might say, a disturbance of the vaso-motor system. Another cause is the presence of some toxic substance in the blood. These with that condition called "nervous" will, in a rough way, cover the ground of causes of headache.

But they may be still further divided, and for sake of convenience I will so consider them.

Congestive headache is one frequently met with. It is caused by an excessive amount of blood in the head. It is known by a flushed appearance of the face, congested eyeballs, a full, bounding

pulse. The pain is throbbing in character, is made worse by stooping or moving the head quickly. There is distention of the arteries going to the head, or there may be a diminution in the caliber of the veins which prevents a return flow of blood through them. This may be due, and I think it is, to some irritation of the nervous centres. A vitiated atmosphere, by reducing the amount of oxygen, and causing a retention of waste product in the blood is often the cause of it. This will sometimes account for those headaches which patients have on awaking in the morning.

Fresh air, cloths wrung out of *hot* water, caffeine, bromide of potassium, ergot, digitalis, aconite and other arterial sedatives, are the remedies most useful in this form of headache.

Anæmic Headache.—This form of headache is due to a lessened amount of blood circulating through the cerebral arteries. It is usually caused by spasm of the arteries, and may be removed by the horizontal position and such remedies as will relieve the spasmodic action of the blood-vessels. Nitrate of amyl, nitroglycerine, cocaine, codeine and belladonna are among those that are the most useful.

Headache due to general anæmia should not be confounded with those due simply to passive anæmia of the brain only. In this disorder there is an impoverished condition of the blood. Persons laboring under this condition of things will often try to do more work than they are capable of, and, therefore, force an illy nourished and nervous system beyond its capacity.

Anæmic blood is like watered milk—is decreased in nourishing qualities; therefore it is easy to see how an organ like the brain, with its numerous nerves, will suffer when compelled to work on poor food.

Anæmic headache usually affects that part of the head that is nearest the arteries that supply the brain, namely, the temples, brow, occipital region, etc.

Iron is, of course, indicated where there is anæmia. The preparations that I like the best are Bland's pills, made freshly; liquor ferri nitratis, perchloride and persulphate of iron, and last, but not least, Rabuteau's pills.

Headache caused by cerebral exhaustion is probably the most difficult to treat. Cerebral exhaustion is caused by over-work of the brain. This is peculiarly an American difficulty. Men and

women will work, worry and wear themselves away in spite of all the advice physicians are willing to give them.

Business men are worried by financial troubles ; wives are worried about social matters ; young men and boys are worried in regard to school and college matters, or perhaps dissipate ; girls are asked to do more in school or shops than is reasonable to ask of a young and developing female. In these days of railroads, telegraph, telephones, fast machinery and other methods of rapidity and competition, there can be found causes enough for over-work. Whatever the cause, the effect produced is annoying and dangerous. The brain is in an irritable condition and forms a central point for general irritation. All sorts of ills, fancies and conditions are produced, and little can be done until the cause is obliterated.

The treatment of such cases is, first, proper food ; not only the digestion, but the assimilation, must be looked after. In the meantime medicine must be administered. The best drugs for this condition are the alkaloid caffeine (the citrate of caffeine is said to be only a mixture), monobromide of camphor, codeine, nux vomica, quinine, gelsemium, guarana, fluid extract camellia ; iron and other tonics.

Intermittent headache is due to some malarial derangement manifested in this manner. Quinine is the most prominent remedy, and may be aided by other remedies.

Habitual headache is due to some derangement of the system, usually of the stomach or bowels. When we enter upon the discussion of the so-called "stomach" headache we simply enter upon a discussion of the disorders of digestion. Headache arising from indigestion is sympathetic and reflected through the pneumo-gastric nerve, or is the result of toxic material (ptomaines probably), produced by some fermentative changes in the stomach and taken up in the general circulation. It may be a derangement of the liver that causes the headache ; then it is called *bilious* headache, and is sometimes very severe. Obstruction to the free escape of bile or interference with the normal functions of the liver—either an increased or diminished secretion are among the causes.

Reflex irritation from the *genito-urinary* organs is also a source of headache. This is noticed in some patients about the period of menstruation. In others displacements and disorders will cause pain in the head, usually on the top of the head.

Astigmatism, if not corrected, will almost always cause headache if the eyes be used much. The disturbance in these cases may become so great as to cause disturbance, through the nervous centre, of the stomach. Ear troubles also sometimes cause headache, but as I do not recollect treating any cases from this cause, I will have to pass over it.

External pains of the head, often called headache, are due to a variety of causes. Syphilis often causes headache, if the membranes of the brain are affected. Rheumatism of the scalp is often mistaken for headache. Neuralgia of the supra-orbital, occipital or auricular nerves is at times very troublesome. These require anti-neuralgic treatment.

A few words on the remedies used in the treatment of headache and I am done.

Caffeine is a very valuable remedy in this disorder, but should not be given in doses of more than two grains at a time; large doses are apt to produce nausea.

Codeine has many valuable qualities. It seems to me to have an action like opium and the bromides combined. Its cost, however (\$12 per oz.), makes it an expensive drug to use.

Monobromide of camphor, in doses of two to six grains, is excellent for slight nervous headache.

A combination of caffeine and codeine is very good, but do not put monobromide of camphor with them—it will surely produce nausea.

Guarana is an excellent remedy for hyperæmic headache, and has some advantages over caffeine.

Fluid extract of camellia and of coffee owe their usefulness to the caffeine they contain.

The bromides are probably used more than any other class of remedies in headache. Their use should be confined exclusively to congestive headaches, except where they are used in conjunction with other remedies.

Ergot and digitalis are useful when we wish to tone up the blood-vessels or diminish their calibre, or to steady the action of the heart itself.

Aconite is occasionally indicated when it is necessary to get control of the heart.

Quinine, salicylic acid, opiates, hyoscyamus, belladonna, gelse-

mium (particularly where there is neuralgia), and nux vomica, are often indicated, and when used in combination with some of the remedies first mentioned, will add to their effectiveness.

Nitroglycerine in small doses is very useful in headaches due to spasm or anæmia of the brain. It acts very promptly.

Cocaine, on account of its peculiarly soothing and quieting action, is excellent in headaches due to cerebral exhaustion and other nervous conditions.—*Detroit Lancet.*

THE INOCULATION, PROPAGATION AND PRESERVATION OF THE VIRUS OF ANIMAL VACCINE, WITH A DESCRIPTION OF THE APPEARANCES OF KINE-POX, AND DEMONSTRATION OF THE VACCINE VESICLE UPON HEIFERS.

By S. C. MARTIN, M.D., of Roxbury, Mass.

(Read before the Section for Clinical Medicine, Pathology and Hygiene of the Suffolk District Medical Society, November 11, 1885.)

When, in response to an invitation by your Secretary, gentlemen, received a short time since, I promised to address this Society upon the subject of animal vaccination, I had in contemplation merely the preparation and reading of a paper upon that subject. Afterwards, however, at his earnest solicitation, and because, on reflection, I appreciated that it would serve to usefully supplement and illustrate my remarks, I decided to present for your inspection to-night an animal at present undergoing the disease. I trust that the opportunity I am thus able to afford you of observing the appearance of cow-pox, as artificially produced, will be productive of sufficient interest to you to warrant the very considerable trouble and inconvenience which this has necessarily caused me. I will allude to this animal later on.

I do not propose to treat you to any extended remarks in regard to the comparison of vaccine produced by heifer-transmitted virus, and that from the human subject after many years transmission from arm to arm, that is, humanized virus. This subject has been fully and

convincingly presented to the profession by my late father, in his Report on Animal Vaccination, made to the American Medical Association in 1877, and published in the transactions of that year; and abroad by Bousquet, Steinbrenner, Estlin, and a host of others. Those of you who were in practice fifteen years ago, and tried the experiment which my father urged upon all, of vaccinating a child upon one arm with the old humanized virus, and upon the other with the cow-pox of Beaugency, and watched the progress of the vesicles on the two arms throughout their entire course, certainly do not need to have the differences described. It is no longer possible here to observe the effects of long-humanized virus. There is probably now none of it in the country; that which passes under that name being but a few human removes from the cow. Which of the two forms of the disease would *a priori* appear, and has shown itself to be, the better protection against small-pox, is to my mind, a matter upon which there is no room for difference of opinion. I have here for your inspection the very interesting plates of Bousquet and Decanteleu, illustrating most clearly the differences in the action of the long-humanized and original cow-pox virus.

Before entering upon the more practical part of my remarks, it is important to define just what true animal vaccination is. I know of no better definition than that by my father: "The inoculation of a young selected animal of the bovine species from an original spontaneous case of cow-pox, from this others, and so on, in continuous and endless series, as the source and the only source of virus for the protection of the human race against variolous disease." This alone is true animal vaccination. Retro-vaccination, or the inoculation of animals with humanized virus, is an entirely different matter and has nothing to recommend it.

A few words in regard to some of the various stocks of cow-pox. On March 28, 1866, the famous case at Beaugency, France, was discovered. From virus derived from inoculation from this, Professor Depaul continued the propagation of animal virus at Paris, under the auspices of the Academy of Medicine. This was the stock introduced into this country by my father in 1870. Various other cases of spontaneous cow-pox have been discovered from time to time in Europe, with virus from which animal vaccination has been and is still carried on in a number of establishments, notably at Brussels, Amsterdam, Rotterdam and the Hague.

After the first experimental inoculation of two calves, animal vaccination was not carried on at Beaugency, but was immediately transferred to Paris, and to that city the practice of the method in France was confined. A knowledge of this fact may, perhaps, in the future, prevent a repetition of the ludicrous mistakes which we occasionally see in print, that various individuals have from time to time imported animal virus into this country from Beaugency.

When in Paris, in 1873, my father was assured by Professor Depaul that the Beaugency virus, sent to him in 1870, was the last which left the city before the siege in that year, and that during the siege the "stock" was lost. The animal virus employed since the Franco-Prussian war is from other stocks, discovered since that of Beaugency.

In February, 1881, a case of suspected cow-pox was reported to this Society by Dr. E. W. Cushing, and was immediately referred to my father, who accompanied Dr. Cushing to his brother's farm at Cohasset. He there found several cows suffering from an eruption on their teats and udders. With virus from these, my father and myself inoculated several animals as well as children, obtaining undoubted typical vaccinal effect. This stock I have continued uninterruptedly since, and, as far as I know, it is the only authentic case of cow-pox in this country which has been preserved.

I kept up three different stocks continuously, namely, the Beaugency, Cohasset and the Esneaux stock, imported from Dr. Warlomont of Brussels; reserving the upper flank of the animal for the Cohasset, the lower flank for the Belgian, and the belly for the Beaugency, thus keeping the three stocks entirely distinct, and issuing the virus from all indifferently. They appear to be all equally typical in appearance and results.

It goes without saying that the animal to be vaccinated should be in perfect health and condition. This must be preserved by proper sanitary measures, not necessary to detail here. The animals should be from six to eighteen months old. Too young animals are troublesome to care for and manage, and those too old and large are not only difficult to control, but, notably in the case of those which have borne calves, are probably not free from danger of tuberculosis. I use bulls and heifers indifferently. The animal is secured upon the operating table in the same manner as the one now before you. Portions of the flanks and belly are cleanly shaved, as you observe. Scarifications are then made in precisely the same manner

as in the human subject, not deep, but merely sufficient to produce a slight appearance of serum tinged with blood. These I make some three-quarters of an inch by half an inch in size, and place them at intervals of at least an inch and a half apart. The fluid virus taken directly from an animal, in which the disease has matured and lying upon an adjoining table, is then thoroughly rubbed into these scarifications. The disease matures at about the seventh day. In this, however, experience and careful inspection of the vesicles is necessary to determine the precise time, it depending somewhat on the condition of the animal and climatic influences. During the progress of the disease the animal is but little affected, the temperature rarely rising more than two or three degrees. Occasionally, in a very fine development of the disease, the animal may lose its appetite for a day or two.

The vesicle on being opened, is wiped clean of any blood or pus, and gentle pressure is then applied. The fluid contained in the vesicle is of a light amber color, and should have an unctuous, smooth character. In animals where the disease is accompanied by excessive action, as shown by much tumefaction of the surrounding tissues, a large amount of thin, almost colorless fluid is poured out, due to an admixture of an excessive flow of serum with the virus itself. I shall allude to this matter more at length in a moment. In some calves, from the finest vesicles it is impossible to obtain lymph without a certain tinge of color, due to the admixture of a minute quantity of blood. This, it can be readily seen, is not of the slightest importance in virus taken from the animal. It was always my father's custom, and is my own, to use those points most tinged, not only for vaccinating other animals, but also for human vaccinations. The sharp end of the ivory points is charged on both sides with the fluid virus as it exudes from the vesicle. When dried, the points are wrapped in cotton in packages of convenient size, then in paper, and finally, are hermetically sealed in gutta-percha tissue.

This effectually guards against moisture, and if care is taken to keep them cool as well, they will retain their efficacy for a considerable time. I have myself made vaccinations with points so kept for over a year, and have obtained perfectly good and typical results. This, however, is not recommended. Points should be ordered only in small quantities as required, and used within a few

days or weeks. In this, and also in all the details of propagation, it is not what may perhaps suffice, but what experience has shown is safe and good beyond peradventure.

As to the form of virus, I recommend nothing but fluid lymph dried upon ivory points, prepared as above described. Crusts are liable to prove inert, and, unless used with the greatest care, may cause very bad results from partial decomposition ensuing after the crust has been moistened. They are apt also to encourage highly undesirable methods, such as inserting the dry, pulverized crust, or portions of the crust itself into punctures; also mixing with water, and allowing the mixture to remain too long exposed to the air. This was one very serious objection to the "solid lymph cones," formerly sold in large quantities, but now, it is believed, no longer in the market. These were composed of crusts and fragments of crusts, powdered, moistened and molded into cone-shaped masses. They were not only open to all the objections applying to crusts, but the mode of their manufacture rendered them peculiarly liable to dangers evident to any intelligent physician. Storing fluid lymph in glass capillary tubes has been found very unsatisfactory. It was at one time much in vogue, but experience has shown that virus so stored is extremely liable to prove inert, and unless sealed perfectly tightly, may become decomposed and dangerous. One great merit of points is, that is well-nigh impossible to have serious complications attending their use, if they are charged with pure, active lymph in the first instance. They either produce typical vaccinia, or, at the worst, prove inert owing to some accidental cause subsequent to charging. In distributing any form of virus, we must bear in mind that among so large a body of men as compose the medical profession, some will be found who will not use proper care on all occasions, and it is most important to issue only that form with which it is impossible to go wrong.

The propagation of animal virus, and its distribution to physicians, are at present, in several ways, in an unsatisfactory state. The *New York Medical Record*, in its issue of October 24th, 1885, editorially says: "At present in all large centres, bovine virus in vaccinating is mainly used, and the steadily increasing demand for this has led to the formation of companies who undertake to cultivate and sell it, with a view, primarily, to make money. These companies are not, as a rule, under any official supervision, and are

at perfect liberty to disseminate worthless crusts or septic poisoning among the people. We learn, as an illustration, that, with a lot of bovine virus recently sent to Montreal, there were one hundred and two trials and one hundred and two failures, while other specimens have produced badly inflamed arms. Here, surely, is a most anomalous condition of things. It is apparent at once that the cultivation and selling of virus should always be under some official supervision. Most States indirectly compel the vaccination of children, and they should, in all justice, see that this vaccination be made with pure and efficient material. But the public supervision of vaccine companies is not yet carried out as it should be, although it is a measure most imperatively needed for the security of the people."

The suggestion is most timely, and I hope it may some day be properly carried out. An attempt at an examination and report upon the various propagating establishments was made in 1882 by the National Board of Health, but was productive of no marked beneficial result. Some of the men detailed for the duty of examination were ludicrously incompetent, their reports showing on their face an ignorance of even the elements of the subject. The only efficient examination and report of which I have any knowledge was made by the private enterprise of the *Medical News*, of Philadelphia. Dr. W. M. Welch, of Philadelphia, the well-known writer and authority on small-pox and vaccination, was employed for the task, and the results were published in the numbers of the *Medical News* from April 15th to May 27th, inclusive, 1882.

Great commercial competition has arisen in the matter of supplying animal virus. The country is flooded with circulars, frequently illustrated with heads of heifers, and gentlemen in spectacles vaccinating calves, or adorned with fanciful mottoes, such as "National Standard" and the like. One ingenious propagator advertises that his virus was imported direct from the "vast herds of the Duke of Beaugency," doubtless a bucolic French noble, who, it is believed, thus appears in history for the first time.

Seriously, gentlemen, this does not show a promising condition of things. A regular physician, agent for the sale of vaccine virus, in a recent number of the *Boston Medical and Surgical Journal*, after saying that he does not know whether the propagator for whom he is agent is a physician or not, but *does* know that he is a

liberal business man, continues, "Animal vaccination and the supply of vaccine virus is a business or trade. There is no mystery about it," etc., etc. I trust, and am sure, that this is not the prevailing opinion among the profession. I desire most earnestly and emphatically to record my protest against such views. The advertising and puffing of vaccine virus, as too often carried on, is a "business or trade," and a pretty low one at that; but I insist and reiterate that the propagation of animal virus, worthy of the name, requires accurate professional knowledge, long experience, the utmost care, and I may add, *honesty*.

The distribution of virus to physicians is now largely done through druggists and instrument-makers. My father and myself for several years refused to supply virus except directly to physicians, or through the hands of local agents in Boston for the convenience of the profession. We continued this rule until it became evident that physicians would not take the trouble to procure it direct, but preferred to rely on the nearest druggist. This is all wrong. Vaccine virus is not a substance to pass through three or four intermediate hands before reaching the physician. It is peculiarly liable to deterioration, and, furthermore, the physician should know just who propagates the virus he uses. I fear that in many cases he is entirely in the dark as to this. Many propagators do not do business under their own names. Large numbers of "Companies" are advertising widely. Possibly some of these are regularly incorporated companies, and are conducted by competent men; but it is believed that some of them adopt the title merely as a convenient *nom de guerre*, like those of certain "Institutes" composed of a "Board of Physicians," in whose spacious laboratories skilled chemists and *savans* compound precious elixirs for the relief of noble but erring youths. I wish to emphasize this matter somewhat for the reason that physicians have become far too careless as to the source of their vaccine supply. The druggist naturally will sell the virus on which he can make the most profit. Animal virus, properly and honestly propagated, is not cheap. By improper methods it can be produced in immense quantities. The temptation to do this, particularly in times of great demand, is irresistible to men who have no professional reputation to sustain, and who look upon the matter as a "business or trade."

Let me call attention to a case which has come to my notice. Dr. ———, a reputable and competent propagator in the West, and

whose virus had become identified with the name of the town where he lived, had the following experience:

A homœopathic physician came to the town, assumed the name of the —— Vaccine Company, and secured a powerful drug-house as his agents. He propagated no virus himself, but gave to a number of ignorant farmers in the neighborhood two cents a point for charging the points with some sort of fluid, which they managed to get from their calves. It being in a time of great demand, these points were sold in great quantities by his agents, as virus from the town named. They naturally produced far from satisfactory results, and much of the blame fell upon Dr. ——: physicians supposing it to be his virus. He exposed the fraud in the local paper. The selling agents of the "Company" threatened him with a suit for heavy damages, but on investigation concluded to let the matter drop, and to close their connection with the "Company" in question.

The above is a good illustration of the propagation of virus as a "business or trade."

I have described and shown you what I consider the proper method of inoculating the animal and preparing the virus. My father and myself, after many experiments, found it to be the best. The number of points which an animal vaccinated in this manner will yield, is comparatively small; but I consider that any attempt to increase the yield is fraught with certain dangers. In times of great demand (the time above all when only what is *known* to be the best should be practiced) certain propagators have found this method far too old-fashioned and "unbusinesslike" for their views. An animal must be made to yield 15,000 to 20,000 points, or more. To accomplish this the following expedient has been adopted: A full-grown cow is usually selected on account of its size. Scarifications from two and one-half to three inches in length by some two to three inches in width are made on the flanks of animals at intervals of about an inch apart. These produce large inflamed surfaces, often coalescing, so that at the end of seven days one large sore will often occupy the whole escutcheon of the animal. Upon this being opened, an immense flow of *colorless* fluid results, with which points are charged. I state the method to you, and say frankly that I utterly disapprove of it. Such extensive scarifications with the great attendant inflammation, must necessarily produce an excessive flow of serum, and it would be a bold man, indeed, who would confidently pronounce the resulting fluid free from the products

of inflammation. It will readily be seen that such immense sores will yield an almost unlimited supply of this fluid. It seems to me that the practice is fraught with dangers evident to any intelligent physician. Suppose the only possible trouble to be apprehended from such virus was either failure to produce typical vaccinia or the production of vaccinia, *plus* a certain amount of inflammatory action, greater or less.

Surely, there being a better way, it should be practiced in preference, even if not so profitable, and even if it did not allow the propagator to be so "liberal" to agents and boards of health.

The wholesale propagation and distribution of improperly prepared virus have done infinite harm to the reputation of animal vaccination. My father introduced the method as an improvement on the existing state of things. It is an improvement and a great reform if properly and honestly carried on; but many reports, a few of which I read to you, tend to show that from certain causes it is capable of becoming the very reverse of a reform.

The Board of Health of Louisiana writes, May 16, 1882:

"Failure with bovine points during the present season has been the rule rather than the exception."

The Secretary of the State Board of Health of Arkansas writes, April 28, 1882:

"The trouble in this State has been not so much from the bad effects derived from bovine virus, but rather from obtaining no effects at all. Reports have reached me from all parts of the State in regard to the worthless character of much of the bovine virus employed."

The Secretary of the Medical Association of Alabama writes, April 30, 1882:

"To sum up the whole in brief, the profession here to a man prefer humanized virus to the bovine lymph in any form, and have long since abandoned it."

The State Board of Health of Minnesota writes, April 26, 1882:

"There has been much complaint in all directions."

Dr. E. L. Griffin, of Fond du Lac, Michigan, an intelligent and able propagator of virus, writes, February 8, 1882:

"I fully sympathize with your views on what is being done during the boom to supply the demand, and greatly fear that animal vaccination will get a bad set-back from the experience of this season."

'The same gentleman writes, March 6, 1882 :

"Those infernal 'cones' have done infinite mischief, I believe, in the West. The other day I got a sharp letter from the Secretary of the Board of Health of a neighboring city, upbraiding me on the quality of my virus, saying that it did not give typical developments of pock, but produced enormous sloughs and sore arms, etc., and washed to know what I was going to do about it. Upon inquiry by correspondence I found that they had been using cones obtained from a druggist in Chicago, and that the stuff was represented as coming from me."

Dr. D. A. McLean, of Stanton, Michigan, writes, May 8, 1882, in regard to his experience with points from the notable vaccine company before referred to, whose virus was propagated by farmers. This virus he procured through a druggist, supposing it to be that propagated by the gentleman who exposed the fraud, as narrated before. Dr. McLean writes :

"The remaining 1,400 cases were vaccinated with points obtained from that institution. A large proportion of these cases were very severe, the fever high and very frequently confining them to the house for a week or more. The local manifestations were great swelling, redness, pain, in fact, all the symptoms of vaccinia greatly intensified, and frequently resulting in a deep, foul and very offensive ulcer. These were very slow to heal; in fact, at this date, nearly three months after the vaccination, I am told that some are not healed. In a large number of cases I am satisfied that no true vaccine pustule was formed, merely a septic sore, and these were the worst cases to heal, and the constitutional disturbances were the greatest. From my experience I am led to believe that the virus was not pure, that is, proper care had not been used in propagating and preparing it; that pus from ordinary suppurating sores had been used to charge the points, or, at least, had become mixed with the vaccine virus."

Dr. Benjamin McCluer, of Dubuque, Iowa, writes, July 7, 1882 :

"I used one 'cone' during my vaccinations last December and January. I became fearful of them, as also of the points. The vaccinations were so severe in development, such immense ulcerations occurred in apparently healthy children, that I became doubtful in regard to the propriety of vaccinations at all. In fact, I lost all confidence in the integrity of the parties dealing in vaccine

matter, and felt that they were actually trifling with the health and lives of the community, as well as the character and honor of the profession which was procuring the supply of vaccine matter from them. I do hope that some way may be developed by which in the future the profession may be able to secure pure vaccine."

Dr. John B. Weston, of Chester, Pennsylvania, writes, October 6, 1882 :

"Part of the time I used a cone which came in a metal box with a file. Part of the time I used a crust. My experience with the cone was vexatious in the extreme. Erysipelas was not infrequent, and I am afraid that the fever and disturbance in one case, if not in two, caused a child's death. The sores in most cases were horrible, and many told me that they would rather have variola itself than what they had gone through. It was not due to any carelessness on my part, for I did not use any a second time, or mix one day's filings with another, so I know the fault was not mine."

Dr. T. S. Hopkins, of Thomasville, Georgia, writes to the *National Board of Health Bulletin* of March 4, 1882, describing the effects of vaccination with virus in the form of "cones":

"The result has been fearful. Nearly every one vaccinated has suffered severely from erythema, or erysipelas, the arm swollen from shoulder to wrist, and the point of puncture presenting the appearance of a sloughing ulcer discharging freely sanious pus. Many of the cases have been confined to bed with high fever from five to ten days, requiring the constant application of poultices, and the free use of morphia for the relief of pain. It (the virus) 'takes' in all cases, regardless of previous vaccination, as shown by well pitted mark, and the inflammation begins frequently on the second day. Those who have tried it tell me they would much prefer to have small-pox.

I have reports of many more similar groups of cases, but will not prolong my quotations to a tedious length. The above are merely selected as being well-marked instances, showing clearly the symptoms of septic poisoning in a greater or less degree. It will be observed that the above are groups of cases, showing precisely similar symptoms in a large proportion of the persons vaccinated.

Single isolated cases of even severe complications, the result of accident, or in unsound or sickly subjects, prove nothing ; but such instances as given above are unmistakable.

The vaccinia, induced by heifer-transmitted virus, is characterized by a certain intensity of action which might be startling to one accustomed to seeing only the effects of the enfeebled virus of long humanization ; but this intensity is not to be deplored, and is only what is necessary for proper protection against variola. It should run a regular course, the vesicle should not break down except through exposure to violence, and, finally, the crust should fall, leaving a healthy, thoroughly healed cicatrix.

In speaking of these various abuses, being a propagator of vaccine virus, I am placed in a somewhat delicate position, and one in which my motives may be easily misunderstood and wilfully misrepresented ; but I should be remiss in my duty if I did not present to your notice, as forcibly as I can, the matter of all others connected with my subject, which has to-day become of the most vital practical importance to the profession.

My father having introduced the method into this country, and having advocated it through good and evil report, stands in relation to it very much as Waterhouse, in earlier days, did to vaccination. Any failure or complications attending it are indirectly laid to his charge.

The complications spoken of above, as well as the woful lack of success, are not due to the *practice*, but to the *malpractice* of animal vaccination. With animal virus properly and honestly propagated, the chances of failure or serious complications are exceedingly small.

Practically the only guarantee which the physician has that the substance on the end of an ivory point is pure virus, or, indeed, that it is vaccine virus at all, is the reputation, skill and honesty of the propagator. So long as physicians and boards of health will buy, and recommend virus simply because it is cheap and produces a "sore arm," utterly regardless of the source of supply, or whether the propagator is a physician or not, so long may we expect a reckless increase in production, the keenest and most dishonest competition, and such results as I have shown above.

Animal vaccination is too efficient a safeguard against a loathsome disease to have its good name injured by ignorance or knavery. The remedy is in the hands of physicians. They should inform themselves of the source of supply of the virus they use, and if abuses arise, should denounce them fearlessly, and not leave the disagreeable task to persons, whose pecuniary interest in the matter renders their motives liable to misconstruction and wilful misrepresentation.—*Boston Medical and Surgical Journal*.

A CASE OF CONGENITAL STRABISMUS.

By CHARLES W. KOLLOCK, M.D., Charleston, S. C.

Congenital strabismus is rare, most cases occurring later in life between the ages of two and seven years. Why there should be a congenital squint is rather difficult to answer, since prior to birth there has been no call upon the ocular muscles for action. That there may be inherited tendencies inducing hyperopia and abnormal relations of elasticity in the ocular muscles is well known. Conjunctivitis and irritating applications sometimes cause the ocular muscles to act reflexly, producing temporary strabismus, but rarely permanent.

Hazy points in the cornea also cause squint, and that these may follow conjunctivitis and keratitis in utero is not untenable. The most satisfactory explanation of congenital squint when the cornea is perfectly clear, and apparently there has been no inflammatory process producing reflex action of muscles, is that it may be due to unequal elasticity of ocular muscles caused by lack of development or innervation of one or more muscles, which in turn may accompany hereditary hyperopia. Such seems to have been the case with a patient whose history is as follows :

Miss C., aged 13 years; eyes have been crossed since birth; right eye slightly turned inward, but the left to such an extent that fully one-half of cornea was invisible; about three years ago both internal recti were divided, but the improvement was of temporary duration. The recti of right eye acted normally, vision was $\frac{20}{xxx}$, and reading Jaeger No. 1 from 7 to 16 in. In the left eye the external rectus was quite insufficient, rotating the pupil to central point, but no farther, and being utterly unable to retain it thus for any appreciable time without marked oscillations. The internal rectus was tense and strong and brought the globe to its abnormal position with a jerk. Vision in this eye was $\frac{8}{cc}$ and not improved by sphericals. A four-grain solution of atropia sulph. was instilled until paralysis of the accommodation was complete, with the following result: Right eye, vision = $\frac{20}{cc}$, increased by + 4 D's. (or + 10s. inches) to $\frac{20}{xx}$; astigmatism too slight for correction to be necessary. Left eye, vision = $\frac{4}{\infty}$, and but little

improved by any spherical. The ophthalmoscopic examination verified the above correction of refraction, showing equal amount of hyperopia in left as in right, but which was not improved by the proper correcting lens owing to amblyopia, as nothing wrong was discovered in disc or fundus of either eye. The internal recti were next divided and that of left eye was extremely tough, creaking like cartilage under the scissors and much thicker than normal. The attachment was fully half an inch from the corneal border, and on that account and its intense contraction the tendon was difficult to catch with the hook. The displaced attachment was of course due to the former division of the tendon. The fully correcting glasses (+ 4 D's.) were adjusted and worn continuously. It has now been more than three months since the above treatment; patient reads Jaeger No. 1 (type) from 4 to 18 in., experiences no inconvenience from study or drawing, and eyes remain perfectly straight as long as glasses are worn, but show some tendency to squint when they are removed. Vision in left eye has not improved. It is not contended that the case is very unusual, or any miraculous cure been made, but the interest centres in the facts that the strabismus was congenital; that both recti had been divided about three years previous to last operation, but hyperopia not corrected; that the eyes became crossed a second time; that hyperopia was an important factor in causing squint, and since the last division of the tendons and application of glasses the eyes have remained straight, and patient has used them constantly without discomfort. The lesson taught is, that it is a bad plan to divide a tendon without first making careful ophthalmoscopic examinations, correcting errors of refraction, if there be any, and testing the strength of the muscles by aid of prisms.

ENGLISH PRECOCITY.—The *British Medical Journal* (Nov. 14) reports the case of a girl thirteen years six months old who gave birth to a healthy boy. The father was a lad fourteen years of age. Does this not remove the centre of precocious fecundity from the tropics and place it over England?

BALTIMORE ACADEMY OF MEDICINE—STATED MEETING
HELD DECEMBER 1, 1885.

The President, Dr. J. J. Chisolm, in the chair.

After the regular order of business the following cases were related :

EVISCERATION OF EYE-BALL BY THE NEW METHOD.

Dr. J. J. Chisolm related a case of evisceration of the eye-ball after the plan recently recommended. The operation consists in completely excising the cornea by means of a circular incision around its margin. The contents of the ball are then to be entirely removed, leaving the sclerotic intact. The advantage claimed for the operation is that the socket tissues are not disturbed, neither is the muscular apparatus of the eye interfered with ; besides, the stump left after cicatrization leaves an admirable seat upon which to locate the artificial eye. The operation itself is a very simple one and can be performed much more expeditiously than can complete enucleation, but convalescence is so very tedious, and, at times, gives rise to such painful and alarming symptoms, as occurred in his case, that in future he will confine himself to the old plan of complete enucleation.

Dr. Chisolm said that it was his usual custom to allow a patient to go about his affairs very soon after the operation, at the outside, twenty-four hours, but in the evisceration operation, even up to the fourth day and later, there was such œdema and pain that he could not think of allowing the patient to be from under his observation. He had never had such an experience with the old method.

Dr. S. C. Chew wished to know if sufficient anæsthesia could be produced by the use of cocaine to enable one to perform this operation without painful sensations on the part of the patient.

Dr. Chisolm thought not.

PARALYSIS THE RESULT OF A FALL.

Dr. A. B. Arnold related a case which occurred at Bay View Asylum a year ago. It occurred in a woman five months pregnant. She fell from the second story window, striking upon the head ;

when picked up she was senseless and remained so for three days. Among the consequences of the fall abortion was brought on. At present she has paralysis of both lower extremities, complete anæsthesia on right side, is deaf and also blind on this side.

She evidently has some spinal trouble, as she complains of that sensation so common to these troubles, "as if a belt were being drawn about her waist;" also has some enfeeblement of the sphincters of bladder and rectum. In addition there is a peculiar nervous jerking about the head, which has continued for one year.

Dr. Arnold thinks the lesion is located about the inferior third of the internal capsule, extending up and involving the optic and auditory nerves at their point of crossing, and also does he take the nerves of sensation which come off at this point to be affected. He thinks the symptoms justify this conclusion. The pupils responded normally to light. She had never had any trouble previous to the fall.

Dr. Chisolm asked if any ophthalmoscopic examination had been made. He said he was prompted to ask this question by a case which recently came under his observation. It occurred in a man who had received a severe beating, and among the results loss of vision began after about six weeks.

He examined him, and found anæsthesia of the fifth nerve, the hearing involved and several small retinal hemorrhages around the point of entrance of optic nerve.

Dr. S. C. Chew related an interesting

CASE OF EMPYEMA.

He had been called in consultation to see a case which occurred in a patient who for several days past had suffered from severe dyspnoea. The night before he saw the patient he had had copious expectoration of matter, the nature of which he could not describe as it was not saved. This was followed by immediate relief from the difficulty of respiration.

Upon physical examination of the chest the left pleura was found to be about two-thirds filled with fluid. Shortly after his visit the patient suddenly died with profuse vomiting of purulent matter, as well as the passage of quantities of it from the bowels. From such symptoms he thinks it highly probable that perforation took place through the diaphragm into the stomach, and that the fluid

was discharged in both directions through the œsophagus and through the intestines. He had searched the literature on the subject and had found no case terminating in this manner recorded. Physical examination of chest made before the first expectoration of matter, showed the pleural cavity to be entirely filled with fluid. More recently he had seen a patient at the Baltimore Infirmary whose physiognomy was indicative of pulmonary trouble. Percussion over right side of chest gave decided resonance both anteriorly and posteriorly. On auscultation on same side there was pronounced Hippocratic Succussion. Shaking the patient while ear was still on the chest gave a sound very similar to that heard when one shakes a jug partly filled with water. No discomfort at all was noticed, neither pain nor dyspnœa. He thought the absence of dyspnœa could be explained on the ground that the air probably distended the pleura (and this compressed the lung) so gradually that this lung, as well as the healthy one, had sufficient time to accustom themselves to their abnormal relations. Whether perforation was due to ulceration outward through the pleura from the wall of a cavity in the lung, or whether it was due to a loss of substance occasioned by a point of inflammation upon the visceral pleura, and thus perforation taking place in the reverse direction, he could not say, although symptoms sufficiently marked were present to point to either mode.

In his opinion surgical interference should be resorted to as soon as the condition of empyema is made out.

Dr. Arnold has seen a case of empyema in a child. It occurred on the right side, ulcerated through the diaphragm, and discharged its contents into the abdominal cavity. The child died from shock. He considered it somewhat remarkable how rarely phthisical patients showed any signs of discomfort from interference with respiration, even though their lungs might be riddled with cavities.

Dr. Chew looked upon this as due to the slowness of the pathological process, this enabling that portion of the lung which is healthy to increase its physiological activity. He also thought, in view of the fact that cavities so frequently form near the pleura, that it was singular that we so rarely found perforations from them.

Dr. Chisolm said serous sacs resisted perforation.

THE COCAINE HABIT.

Dr. J. C. Thomas said since he had been told that in some of our principal cities the cocaine habit was largely being acquired, he would like to ask if any member had ever seen a case of it, and if the report is true, did not the gentlemen think that the medical profession should take some steps to prevent the reckless prescription of this seductive drug.

Dr. Chisolm related two cases in which decided loquacity was produced by the introduction of cocaine into a cavity in a decayed tooth. In speaking of cocaine tablets, he referred to a condition amounting almost to a slough, that was produced on the buccal surface of his own cheek from the application of one of these tablets to the gum and allowing it to remain until dissolved. From this, he hardly considered them the thing to use in nasal catarrh.


USE OF THE RECTAL LEVER.—Mr. Richard Davy has demonstrated the practical value of rectal compression of the aorta and both common iliac arteries in three instances within the last ten days. The first case was one of compression of the right common iliac artery for the removal of a recurrent growth involving the whole of Scarpa's triangle and the inguinal canal. The external iliac artery and vein were ligatured; so also were the superficial and deep femoral arteries and veins. The patient was a man aged twenty-eight, under Mr. R. Davy's care. Mr. Thomas Bond held the lever. In the second case, Mr. George Cowell amputated at the left hip-joint in a boy aged twelve, for sacroma of the femur. Mr. Davy controlled the left common iliac artery. The third case was one of excision of the cervix uteri and adjacent parts for epithelioma, by Dr. Potter, in a woman aged twenty-nine. Mr. Davy controlled the aorta for five or six minutes during Dr. Potter's manipulations. The total loss of blood during the three operations did not exceed seven ounces, and no rectal inconvenience has been experienced in either case.—*British Medical Journal*.

EDITORIAL.

THE NORTH CAROLINA MEDICAL JOURNAL.

A MONTHLY JOURNAL OF MEDICINE AND SURGERY, PUBLISHED IN
WILMINGTON, N. C.

THOMAS F. WOOD, M. D., Wilmington, N. C., Editor.

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SHALL THERE BE A MEDICAL COLLEGE IN NORTH CAROLINA?

At the Durham meeting of the State Medical Society Dr. Wm. R. Wood introduced a resolution favoring the establishment of "a medical department at the University of North Carolina, as nearly as practicable on the same basis as that of the Medical Department of the University of Virginia." We believe that the time has come to consider the question seriously. We believe, also, that the time has come when we should have a medical department at the University, provided enough money can be secured to establish it upon a firm foundation, making the salaries of the professors entirely independent of the fees from the students. North Carolina

is a rich State, owing few debts, and amply able to do ten times more than she has ever done for the promotion of learning. Nominally we have for years had a University, but practically the meagre appropriation made by the State has been insufficient to provide instructions in all the schools embraced in such a seat of learning. The courage which has been displayed by the President and Faculty in attempting such great work with such small sums is worthy of all commendation, but reading between the lines it means that young men of training as teachers are willing to work with ardor upon salaries usually paid to good book-keepers, with the expectation that some day the State will do better.

We doubt, though, if such a state of things would do to count on in organizing a medical school. Professors could be had in abundance, of course, and professors who would be willing to work for the meagre salaries given to others at the University; but to secure a corps of teachers with reputation enough to attract medical students (and so draw our young men away from the older colleges out of the State) could not be secured for less than three thousand dollars a year, if for that, and this is the first practical point to be looked at. If, then, the medical faculty was organized upon the basis of the University of Virginia, there would be necessarily three professors of the medical school, one of the professors of chemistry in the academic department lecturing upon medical chemistry. But the science of medicine is not what it used to be when the University of Virginia was organized, and it is hardly possible that a school with only three professors could offer a course which would attract students even if such teachers could be found. We could safely estimate, therefore, for at least four professors besides the professor of chemistry. This would make the necessary yearly expenses for teacher's salaries \$12,000. It would be useless to undertake an organization which would not at once command the confidence of the profession. State pride is not going to keep young North Carolinians at home, and the railroads seem all to be purposely built to lead to the doors of our neighbors; and the faculties of the older colleges know this, and know the weakness of our young men to accept their offers. State pride, furthermore, would be a detriment to us if we allowed it to confine the selection of the faculty to the State, for no better reason than that the appointees were Carolinians, and Church and party affiliations would

be contemptible influences to control the selection of men competent to teach the most complex of all sciences.

Now, as to the method of instruction at the College. We heartily agree that the organization should be after the model of the University of Virginia. Of course no clinical advantages could be expected in a University town with the population of Chapel Hill. But excellent training in practical anatomy, chemistry and physiology could be conducted at Chapel Hill as well as in any place. We believe that the necessity of the medical student is continuous disciplinary training during sessions of nine months. Daily instruction in the laboratories, daily lectures, daily recitations should be demanded, and the standard of scholarship should be what it is at the University of Virginia. The first-course student, with the very best training possible for him, has barely learned how to study with advantage, and he should not be encouraged to give much time at clinics. After he is well founded in the elements he will be in condition to take in clinical teaching. The graduates of such a school, though, would hardly be fit to begin the practice of medicine without more clinical teaching than would be available. But this difficulty has not been much of an obstacle to the success of the University of Virginia. Her graduates usually pursue a course of clinical studies in some metropolis, and usually take the degrees of other colleges with ease. With teachers of the same calibre as those in our sister State we could do the same.

The advantages which large cities have over country places for medical colleges are numerous and must not be overlooked. The professors selected there are for the most part practitioners of established reputation and good incomes, who could serve as teachers at salaries very little more than the increased practice which the éclat of their avocation brings them. The university professor would get but little income by practice, and would have to be assured a good salary to keep him. To recapitulate, then, we would say :

(1) We need a medical college at the University if a first-class institution were founded with modern improved buildings and ample salaries to secure teachers who would be the equal of other first-class medical colleges.

(2) We need a medical college where individual disciplinary control could be exercised over the students, both as regards their studies and their conduct.

(3) It would greatly benefit the University to have a medical school by giving to the course of teaching in physics, chemistry, biology and natural history of the academic department a more comprehensive purpose.

(4) It would promote the cause of medical learning in North Carolina and insure for the people of the State a generation of better doctors than we now have.

We conclude by saying that without a college can begin with a fund equal to \$12,000 a year, independent of about \$30,000 to be used in the erection of suitable buildings, we had better wait another century, if necessary, until we are able. North Carolina is certainly able now to begin this work if she will.

THE AMERICAN PUBLIC HEALTH ASSOCIATION—THIRTEENTH ANNUAL SESSION—CONFERENCE OF STATE BOARDS OF HEALTH.

The activity of public-health work had its exponent in the late meeting held in Washington City, D. C., December 8th to 11th. The attendance was a large one, representing nearly every State in the Union, both in the Public Health Association and the Conference of the State Boards. Willard's Hotel was headquarters for both bodies, and there was just enough friction between the two to give life and increased energy to the parent Association. The members of the Conference were members of the Association, and every effort was made to prevent a conflict of hour in the time of meeting of the two bodies. In the Association regular set papers were read; in the Conference there was less of formality, and a free colloquial interchange between executive officers of State Boards. Both bodies did good work, but not without exciting some degree of jealousy. Both bodies had the same object in view—promoting the study of sanitary problems—and both have a well-defined sphere which may exist side by side without jarring, as long as good judgment prevails among the executives of each body.

Notwithstanding the Willard Hall was insufficiently heated, the first day's meeting was a large one, the papers read being very able. Dr. Ezra M. Hunt, of New Jersey, read a paper discussing the possibility of a standard and uniform nomenclature to meet the necessities of our

growing knowledge in germs, germicides and antiseptics and kindred topics, and in vital statistics. Dr. J. S. Billings gave some illustrations of improved methods for recording and tabulating vital and mortuary statistics, and models of cards with tabulated returns for exchange between officers of health of different cities and States. Much interest was attached to Dr. Billings' suggestions inasmuch as they were the result of his study and experience in tabulating and editing the returns of sickness and death for the census of 1880. Nothing short of an examination of the work in print can convey an adequate idea of its value.

Dr. Henry B. Baker, the well-known Secretary of the Michigan Board, presented a very thoughtful study of "The Relations of Rain-fall and Water to Cholera," based upon the epidemics of this disease in Calcutta from 1865 to 1884. The research necessary for the preparation of such a paper, and to present it in tabular graphics, must have been immense. There will be no difficulty in comprehending the conclusions arrived at in these tables; it is another excellent example of a method of which Dr. Baker is master.

Dr. D. E. Salmon, of the Bureau of Animal Industry, gave another contribution on the subject of hog-cholera, upon which he has been at work clinically and in the laboratory for so many months. He called attention of the Association to the dangers which may result from the method of disposal of the carcasses of hogs dying with the disease. The subject is of national interest, the disease costing the country, according to Dr. Salmon's estimate, \$30,000,000.

Dr. Charles H. Fisher, of Providence, read a paper on the death-rate of consumption in Rhode Island for a quarter of a century. Statistical matter from Rhode Island is always of value because the records are well kept, and the smallness of the territory enables the officers to scrutinize details most thoroughly.

President Cleveland was expected to be present at the opening session, but it was Cabinet day and Congress was just organizing, and the Association had to be content with a letter—and a letter, too, which abounded in good sense, and few formal compliments.

The Presidential address of Dr. Reeves was excellent in manner and matter. One cannot help wondering when they see medical men without any training or experience in public speaking acquit themselves with his ease and dignity. Self-possessed, deeply in earnest, not neglectful of the graces of oratory, putting himself *en rapport*

with his mixed audience of sanitarians and the general public, he succeeded in setting forth the claims of sanitary work as a preëminent trust, one which the general government could no longer neglect. The quotation of a paragraph from his address will give the key-note of the argument for governmental aid :

"The passage from infancy to childhood, and from childhood to adolescence, is a thousand times more dangerous than the approach to our harbors ; but no central effort is made to save the children from death before they reach their fifth anniversary in the voyage of life. During the present year an appropriation of over two millions of dollars was made for the establishment and maintenance of light-houses, fog-signals, and other like means to warn and guide the mariner ; and should shipwreck nevertheless overtake him, nearly another million has been furnished to aid in his escape from imminent peril by keeping up the service of the Life-Saving Stations."

On the second day Dr. P. H. Bryce, Secretary of the Provincial Board of Health, Toronto, Ontario, gave a very detailed account of the progress of the outbreak of small-pox in Canada. His paper was illustrated by a map showing the foci of the disease. Dr. William H. Hingston, of Montreal, followed with a more particular account of the ravages of the disease in Montreal. The whole story was a sad recital of precautions neglected. If it may serve a lesson for the future, well and good, but there must be a great improvement in the spirit of the people, especially of the French population, before small-pox epidemics cease to threaten that country.

Dr. A. N. Bell, of New York, was not at all too forcible in his language when he declared that "if one tithe of the energy expended in Montreal since the small-pox appeared there, if expended before, would have prevented a single case." He considered small-pox "a crime," and denounced the anti-vaccinists.

The important papers read subsequently were as follows: Dr. Wight, "Experience in Disinfecting Sewers"; Dr. Rauch, "Maritime Quarantine from the mouth of the St. Lawrence to the Rio Grande"; Dr. Holt, "Sanitary Protection of New Orleans, Municipal and Maritime"; Dr. Morris, "Disposal of the Dead."

The report of the Committee on Disinfectants was presented in a printed form, and we advise every one of our readers to procure a copy. It represents some of the most thorough work ever done in this country to prove and determine the value of disinfecting agents.

One of the particular features of this meeting was the award of the LOMB Prizes to the successful competitors. Mr. Lomb is a German of the well-known firm of Bausch & Lomb, optical instrument makers, of Rochester, New York, who donated \$2,800 (the fund for the procurement of the essays), was present, and charmed all by his extreme modesty and liberality. The essays which gained the prizes will be largely distributed for the public good. The exact form will have to be determined by the Committee on Publication.

Dr. Sternberg was awarded the \$500 prize for his essay on "Disinfection and Individual Prophylaxis against Infectious Diseases"; Victor C. Vaughan was awarded the second prize (\$250) for his essay on "Healthy Homes and Food for Working Classes"; Dr. F. Lincoln, a second prize for "The Sanitary Conditions and Necessities of School-Houses and School Life"; and George H. Ireland, "The Preventable Causes of Disease, Injury and Death in American Manufactories and Workshops, and the best Means and Appliances for Preventing and Avoiding them."

We cannot close this short sketch of this important meeting without returning our thanks to Dr. Joseph Holt, of New Orleans, for the able manner in which he presented the condition of the New Orleans quarantine. The subject involves vast interests which from Virginia to Texas annually stir the good people of the South to their very depths. Dr. Holt set forth the policy of the New Orleans sanitary and quarantine boards, and gave in frank and eloquent language the renewed courage which the people of the Mississippi delta had gained by the thorough system of quarantine which had been worked out there. Dr. Holt, in public and in private, was extremely courteous and patient in answering all inquiries as to the details of the methods employed at the New Orleans quarantine, and we expect to see in another year this system set up at the mouth of the Cape Fear River.

One parting word for the Conference of State Boards. It is a very useful body. It certainly gave shape to the legislation of the year just passed in adopting means for the prevention of cholera. Its promise for usefulness is still greater, and now that the meeting is arranged not to conflict with other meetings, we may expect more time for necessary work. We predict good work under the Presidency of Dr. McCormack. He is a practical man, with a deep insight into human nature, and has the confidence of the best men in the country working in the same field with him.

NOTE TAKING.

Systematic note taking is very largely neglected by physicians, and knowing this fact, and realizing how great an amount of valuable experience is thus lost to the profession, we deem it proper to urge upon the profession the propriety of undertaking systematic note taking as a new resolution for the year 1886.

The advantage of note taking is two-fold. It not only makes record of facts witnessed while they are fresh, and thus give them more value, but it also imparts to the observer more accuracy in his habits at the bed-side.

Doubtless many practitioners are learning over and over again the same old lessons of things to be avoided, of errors to be corrected, by trusting to slovenly memories, being actually detected by their patients and reminded by them in not very pleasant ways before they come to the point of correcting them. As far as we have observed physicians in their method of practice, there is but little danger that many of them will ever be imitators of Louis in his numerical methods, or become dry statisticians by reason of their adherence to facts and figures.

A system of note taking is now easier to begin than ever before. Every well equipped doctor in his daily rounds carries to the bed-side a clinical thermometer and a urinary test case. Blank slips ruled for temperature, pulse-rate, and all other items of clinical importance may be had in blocks conveniently bound for carrying in the pocket, and everything is done to tempt the sloven and lazy doctor to record his cases with the least amount of clerical work. Of course what we have said does not apply to the doctor who has not learned to rely upon thermometric observations of his patients, and necessary critical examination of secretions, for such there is but little hope of clinical accuracy. The spirit of the times now demands accurate work, and the doctor who can write a good clinical history of his cases is of far more use to the profession than he who is constantly striving to give to the public a startling discovery. Habituate yourself to take notes on all your cases, and when you come to your annual Society meetings you will have something good to read, and you will not clear the hall by the bare announcement of your subject. Try it!

DEATH OF DR. HENRY W. FAISON.

We record with exceeding sorrow the death of our old friend Dr. Henry W. Faison. He was an active practitioner for forty-one years, and died at the comparatively early age of sixty-two. He was a most laborious man, pursuing his calling always with vigor, and ever on the alert for all that was newest and best in the progress of the day. He brought great personal influence to bear with his patients, and he was esteemed far and near in Duplin and Sampson counties as the man of authority in physic.

He was always an active promoter of the State Medical Society and its auxiliary bodies. He was probably on more committees of nomination than any other member, thus naming officers for thirty years, but never for a moment allowing himself to be put forward. His heart was in the advancement of men of merit, and he went to great lengths to see them well started in the line of succession in the Society.

"Farmer Faison," as he called himself half jokingly, but exultingly, well deserved the name. His farming operations were large and successful, and he often declared that "Farmer Faison" had to feed "Dr. Faison," or there would be a failure.

Dr. Faison esteemed the value of education for his children above all other acquirements, and although coming out of the war impoverished, he saw a large family receive the advantages of the best colleges and universities in the South.

Seldom does a community bestow its friendship and allegiance so fully upon a man as the people of his town bestowed it on Dr. Faison, so confident were they of his soundness as a politician, his success as a farmer, his skill as a physician.

On the 23d of December, 1885, very quietly and peacefully he died at his home in Faison, surrounded by his family. We hope to present an obituary in this JOURNAL in another place.

NEW YORK LETTER.

CIRCUMCISION UNDER COCAINE.

Circumcision, often an imperative operation, is sometimes indefinitely postponed owing to the unwillingness of the patient to take chloroform or ether. It is done now under cocaine in the following way: The blood is first forced out of the organ by means of a rubber band and then is constricted by means of a piece of rubber tubing tied tightly around it near the scrotum. Then, with a hypodermic syringe charged with 15 minims of a 4 per cent. solution of cocaine, a puncture is made on either side of the prepuce, going in between the skin and mucous membrane at their junction, discharging half the quantity on each side; and by moving the needle around in the loose connective fissure 2 minims are injected in different places, thus distributing the solution pretty well around the whole surface of the prepuce. The operation can then be done and the sutures introduced and tied without the slightest inconvenience to the patient, and with little or no loss of blood.

The dressing consists of absorbent cotton soaked in a solution of bichloride of mercury, 1 to 2,000, wrapped around the organ, which is then bandaged with a finger bandage, care being taken to leave the meatus free. The organ is then placed up against the abdomen and covered with a thick layer of absorbent cotton. A wide bandage passing around hips and body binds the whole firmly down. The patient can then get up and go about his business. The dressing is not disturbed for a week except to relieve the calls of nature.

A NEW APPARATUS FOR FRACTURE OF THE CLAVICLE.

At a recent meeting of the Academy of Medicine Dr. S. W. Smith read a paper on "Fractures of the Upper Extremity," and introduced a new apparatus for fracture of the clavicle. A scarf of muslin wider than a bandage is fastened at its middle by means of a clove-hitch around the fore-arm or elbow, which is drawn backwards as far as possible; the two ends then cross the back and fasten by means of a safety-pin or tied in front of the opposite or

well shoulder, one end passing over the shoulder and the other under in the axilla. The ends remaining are then formed into a loop, which is used as a sling to support the hand. By this the shoulder is thrown upwards, outwards and backwards, as in Sayre's and other splints, for the same fracture. It has a decided advantage over Sayre's adhesive plasters in that it may be worn with comfort in warm weather without inconvenience, and can even be worn over an under-shirt.

OVARIOTOMY.

In tying the pedicle, Dr. Thomas, to lessen the risk of secondary hæmorrhage as much as possible, after transfixing it with a double ligature of strong silk carbolized, crosses the ligatures (after it has been cut to detach the needle), ties them on each side, then the remaining ends on either side is made to encircle the whole pedicle and tied again, thus making four times that it is tied, viz: twice it is tied, each time constricting half of the pedicle, and twice constricting the whole.

I would add that formerly the Easlee perineum needle was used for transfixing the pedicle, but now, when it can be done, the dressing forceps are made to carry the ligature, as there is less likelihood of injuring a vessel with them.

A. H. GOELET, M.D.

1322 WALNUT ST., PHILADELPHIA, Dec. 10, 1885.

Dr. THOS. F. WOOD, *Editor North Carolina Medical Journal*:

DEAR SIR:—In the number of your JOURNAL for November, 1885, page 288, in reviewing my book upon "Milk Analysis and Infant Feeding," you misquote me in such a way as to make me appear to teach exactly what I have been at the greatest pains to disprove. I hope, therefore, you will give publicity to this letter in your JOURNAL. The passage from your review is as follows: "The author puts the casein in human milk in one place at 1.046 per cent. (p. 40), instead of 4 per cent., although the author admits (p. 65) 2 to 2½ per cent." The clause containing the admission that human milk contains 2 to 2½ per cent. of casein is a *quotation* of the views

of Biedert. The whole basis of my work is the conclusion which I reached after much study, which will be found stated at page 27 of my book, viz: "The observation of the author, therefore, that human milk never contains more than about 1 per cent. of casein, is an original one; for, although Henri and Chevallier, and other investigators, long ago arrived at nearly the same analytical results, yet none of them ever enunciated the belief that human milk contains always the small amount of casein, and never 3 or 4 per cent., as commonly supposed, thereby denying the correctness of the analyses commonly accepted as standard."

Very respectfully yours,

ARTHUR V. MEIGS.

REVIEWS AND BOOK NOTICES.

DISEASES OF THE LUNGS (of a Specific, not Tuberculous Nature); ACUTE BRONCHITIS; INFECTIOUS PNEUMONIA; GANGRENE; SYPHILIS; CANCER AND HYDATID OF THE LUNGS.. By Professor GERMAIN SÉE. Translated by E. P. HURD, M.D. With Appendices by George M. Sternberg, M.D., and Prof. Dujardin Beaumetz. New York: Wm. Wood & Co., 56 & 58 La Fayette Place. 1885.

The introduction to this volume from the pen of the translator, Dr. Hurd, is worthy of its place, and should not be lightly passed over by the reader in his eagerness to peruse the volume. We had a foretaste of it in the *Boston Medical and Surgical Journal* of some months ago, and now reread it with renewed pleasure. It forms an admirable essay on the germ theory, written in a true philosophic spirit, well calculated to make the over-eager student whose fancies have been charmed by the plausibility of enthusiastic laboratory students, to pause, on the very threshold of his work, before the labyrinth of difficulties which open before him.

But to the book itself. The arrangement of the subject differs in many respects from similar volumes. It is divided under two

general headings of acute and chronic specific diseases. The first heading is divided into acute-bronchial inflammations, acute pneumonia, which is followed by several chapters on the general therapeutics of the Broncho-pulmonary inflammations.

The specific diseases comprehend syphilis of the lungs, cancer of the lungs and hydatid cysts of the lungs. All tubercular diseases are omitted. The two brief pages which discuss the parallelism between catarrh and inflammation, is a clear presentation of a subject which is not definitely fixed in the minds of practitioners in general. The pathology of catarrh has been undergoing fundamental modifications of late years, and its study has lightened other pathways." "Catarrh is not a simple hypersecretion," says Prof. Sée, without the participation of the vascular and cellulo-glandular elements; there is always hyperæmia, diapedesis of leucocytes, and degeneration of the histological substrata. This, then, is the congeries of lesions comprising the complex condition called inflammatory, of which no one lesion has any value or significance apart from the others. In fact, the hyperæmia may be merely functional, non-inflammatory and of transient duration. The degeneration of the fixed cells belongs to certain regressive states which pertain to the terminal periods of inflammation. The hyperæmia distinguishes the acute catarrhs, structural degenerations the chronic." In this connection the translator renews the statement, which we are not at present able to disprove, that the diapedesis of white corpuscles through the dilated capillaries really belongs to Dutrochet (1824), and not to Waller and Cohnheim.

One division of the subject of pneumonia, treated under the head of divers specific pneumonias, it is worth our while to mention. Its mere mention will recall to some of our readers of the old series of the JOURNAL a controversy which was warm and lengthy, consuming all the space available. The author admits the existence of a *Malarious Pneumonia*, and mentions it as the pulmonary localization of intermittent fever, a fever which he considers infectious, and that quite regardless of whether we admit the bacillus malarie as the agent of infection. With Grisolle, he repudiates the idea that pulmonary inflammation complicates an attack of fever and ague; his view being that the pneumonia and the intermittent fever are two pathological states linked intimately together and proceeding from the same pathological cause. * * * "The

disease may begin in two different ways. Sometimes it is the febrile element which dominates the situation; the medical attendant thinks that he has before him a case of simple fever and ague, and it is not till the second attack that the pulmonary disease unmasks itself. Sometimes the local symptoms appear first with the ordinary signs of pneumonia, and it is only the subsequent march of the disease which reveals its paludal character."

The appendices to this volume give some of the recent studies in the bacteriology of pneumonia; by Dr. Sternberg an account of bacteria in general by Prof. Dujardin-Beaumetz. Many readers will turn again with pleasure to the more entertaining style of the French, if for no other reason than that the German has had such unrestricted predominance in the medical world; but merit of unusual character will be found in Prof. Sée's treatment of diseases the lungs, and the volume is intrinsically valuable.

CLIMATOLOGY AND MINERAL WATERS OF THE UNITED STATES. By A. N. BELL, A.M., M.D. New York: Wm. M. Wood & Co. 1885.

The author of this work is well known as the editor of the *Sanitarian*, the oldest journal—indeed, the pioneer journal—in this country, on health topics. Dr. Bell has seen the small spark kindled by his hand grow into glowing fire, which has quickened the apathetic thousands of doctors and other public men into a strong body of sanitary workers. Nothing is therefore more natural than to have from his pen a work on one of the topics allied to the public health. We have from his pen a volume of 386 pages, taking up the subject of his title in the following order: What is Climatology?—The Atmosphere—Its Extent and Physical Properties—The Composition of the Atmosphere—The Stability of Local Conditions of Climate—The Relations of Land and Water to Climate—Heat—The Winds—Altitude—Atmospheric Pressure—Sea-Coast Places and Open Air—Forests—Climatological Topography in General—and of the United States—of the Atlantic States—Mineral Springs—of the Springs of the Mississippi Basin—the Western Highlands—the Pacific Slope—The Weather—The Seasons—The Relations of Climatology to Life Insurance—Practical Conclusions.

Dr. Bell states in his preface that he has not himself observed

the conditions described, but he has used the observations of others, without preconceived theory of relative values.

The important position of the pine tree as a drainer of the soil, is correctly given by the author, and we only wish we had elaborated this branch of his subject. The pine on the Atlantic coast is by far the most valuable tree we have, as a soil-drainer, as an ozonizer of the atmosphere, as an antagonizer of malarial poisoning, both by its dense growth, affording a barrier against air-laden poison, and by the medicinal emanations from the leaves and bark of the tree. Furthermore, the pine is very hardy, flourishing in "barrens" and swamps equally well, and withstanding the severest cold to which it is liable, and resisting the fiercest storms. The eucalyptus has some of its qualities. It is succulent, of rapid growth, is resiniferous, but is not hardly as far north as Wilmington, and under the most favorable circumstances is not a rival of the pine. The sole merit which the eucalyptus may be said to have over the pine is that it can be readily raised from the seed, and the young plants can be transplanted. The pine is not so easy to to manage.

Everywhere in this book we turn we find some information we desire to have, and "Bell on Climatology" will be frequently consulted by many a health officer who would consider it far too dry to read through continuously.

SANITARY ENGINEERING. By WILLIAM CAIN, C. E. Third Edition.

A good sub-title for this excellent treatise would be, "Plain and Practical Facts in the Elements of Sanitation, for Superintendents of Health and Householdors."

The author of this booklet is favorably remembered as the civil engineer of the North Carolina Board of Health until he was called to a professorship in the Citadel College in Charleston. Two large editions had been expended when the present Board was constituted, and Prof. Cain kindly consented to rewrite it during his summer vacation. The present edition has much important matter added to it, and we find none of the high science in it we would naturally expect from a professor of mathematics. Nothing but practical common-sense writing is to be found on every page, and we com-

mend it to the study of every one who has the health interests of one single person to look after—and who has not?

The State Board of Health offers this work gratuitously to all those who desire a copy, with a hope that it will excite earnest attention in the sanitary conditions of the homes of the people, and more humane care of the wards of the State and counties.

HANDBOOK OF THE DISEASES OF THE SKIN. Edited by H. J. ZIEMSEN, M.D., etc. [With Twelve Callaborators.] Illustrated with Eighty Wood Engravings and Color Prints. New York: William Wood & Co. 1885.

We learn by the preface of this handsome quarto that it was prepared by the publishers expressly for presentation "to many thousand readers." We quite agree that "there is no precedent for a publication of a book of this high character and size for free presentation."

Among the contributors to the volume are dermatologists of the highest reputation, as our readers will recognize by the following array of names: Auspitz, Geber, Lesser, Koenigsberg, Schwimmer, Unna, Weyl and Von Ziemssen.

The anatomy and the development of the skin is very minutely described and illustrated with diagrams and drawings, by Dr. Paul G. Unna, and this is followed by the physiology of the skin by Ziemssen. The difficult subject of nosology, semeiology, etiology of skin diseases and their classification is by Auspitz.

We miss many of the new ideas and therapeutical methods of the American school of dermatology, which of course is to be expected in reproducing a large volume from a foreign language. But this volume is peculiarly valuable in the department of anatomy, and is highly valuable in treatment.

Unlike many of our best text books on dermatology, it treats the whole subject of syphilis.

The publishers and donors of this valuable volume deserve the thanks of the profession, and we desire to return ours to them for this addition to our collection.

PHYSICIAN'S LIST FOR 1886.

P. Blakiston, Son & Co. send us their "visiting list," which is now in its thirty-fifth year. It is one of the best, and it is sold at the reasonable price from \$1.00 upwards. Give it a trial this year.

THE BOARD OF MEDICAL EXAMINERS OF NORTH CAROLINA.

In response to numerous inquiries, the order of examinations at the next meeting of the Board, in Newbern, on the *third* Tuesday in May, 1886, will be as follows:

Chemistry and Pharmacy—Dr. William R. Wood.

Anatomy—Dr. W. J. H. Bellamy.

Practice of Medicine and Medical Pathology—Dr. P. L. Murphy.

Materia Medica and Therapeutics—Dr. Willis Alston.

Physiology and Medical Hygiene—Dr. Francis Duffy.

Obstetrics and Diseases of Women and Children—Dr. James A. Reagan.

Surgery and Surgical Pathology and Diseases of the Eye and Ear—Dr. Augustus W. Knox.

GELSEMIUM HABIT.—The *Southern Medical Record* (November, 1885) quotes from the *Medical and Surgical Herald* a case of gelsemium addiction which is unique. The subject was a young man. He was robust, had lived a life well divided between work on the farm, study and rational recreations. Mentally he was well balanced. He contracted chills, rheumatism supervened, for which fluid extract of gelsemium was given, and afforded him relief. On one occasion in great agony, he took a large dose, and his experiences were "wonderfully pleasant." The habit became fixed, the patient taking as much as a fluidounce of the extract at one dose! He became pale, emaciated and listless, and a prey to terrors and hallucinations.

His hearing became singularly acute. He was apparently regardless of what was passing; still he could detect whispers uttered many yards away. After a year or more of this singular habit, he sank into a condition of hopeless idiocy, and died in a stupor.

CURRENT LITERATURE.

BRIGHT'S DISEASE.

"Elements of Prognosis in Bright's Disease" is the title of a paper in the *Journal of the American Medical Association* by Prof. Austin Flint, and from it we extract the following conclusion drawn by him :

1. Acute Bright's disease, as a rule, does not tend to a fatal result, nor to eventuate in a chronic affection.

2. A sub-acute diffuse nephritis having the same seat and character as acute Bright's disease, exclusive of acuteness, occurs not only after scarlet fever and other infectious diseases, but irrespective of these. Occurring in other pathological connections, or as a primary affection, it is liable to be overlooked, and, if recognized, it is liable to be mistaken for a chronic form of Bright's disease.

3. Acute Bright's disease or a sub-acute diffuse nephritis not infrequently occurs as an intercurrent affection in the course of Bright's disease.

4. A susceptibility to the causes of inflammation of the uriniferous tubes, irrespective of the existence of chronic Bright's disease, is to be recognized as an individual peculiarity.

5. Chronic Bright's disease may exist as a latent affection for an indefinite period, provided the danger to the kidneys is no more than an equivalent to the loss of one of these organs, and provided the functions of the other organs of the body are well performed, and provided the laws of health are observed. The disease may be well tolerated so long as the renal affection does not progress, and the accessory conditions are favorable.

6. The adequacy of the functions of the kidneys has relation chiefly to the amount of excrementitious elimination of these organs, and this amount may be determined with sufficient exactness by ascertaining the specific gravity of the urine and the quantity in a given time. If there be not inadequacy, the treatment by diuretics, hydragogues and sudorifics is not only uncalled for, but hurtful.

7. The danger from the accumulations of the constituents of the urine in the blood is not in all cases determinable with accuracy by ascertaining the amount of renal inadequacy, owing to variations in the efficiency of vicarious elimination and in the tolerance from habit of these constituents.

8. Uræmic coma, occurring in cases of chronic Bright's disease may be incident to an intercurrent temporary nephritic inflammation or to accessory conditions, so that if impending danger can be averted, restoration to the state of health which existed prior to its occurrence may be hoped for. This statement applies also to acute pulmonary œdema.

9. Renal asthma is generally, if not invariably, a fatal prognostic.

NEW HANOVER COUNTY MEDICAL ASSOCIATION.—At a meeting of reorganization of this Association Dr. William J. Love was chosen President, Dr. F. W. Potter Vice President, and Dr. W. J. H. Bellamy Secretary. The first regular paper of the session will be by Dr. Bellamy on the "Methods of the Administration of Medicine." Dr. C. T. Peckham is chosen to open the discussion. All of the new methods to promote the activity of the work for the current year, are in the direction of scientific medicine. The minimum of ethical controversy is expected.

LANOLIN is a proposed new basis for ointments, having advantages over the glycerine fats and petrolatum. Its most remarkable properties are the power of taking up an equal bulk of water, its resistance of decomposition and its easy absorbability. A 5 per cent. carbolic ointment made with it produces a sensation of numbness, and a salve of 1:1000 of corrosive sublimate gives the characteristic metallic taste a few minutes after inunction. Lanolin is prepared from wool, and consists of fatty acids united with cholesterin.—*Medical News*, Dec. 26, 1885.

A PAINLESS ESCHAROTIC.—The *Medical News* of January 9, calls attention to the discovery by Drs. Randolph and Dixon, that if a 10 per cent solution of cocaine be applied to an ulcerated surface, that a paste consisting of potassa fusa and vaseline could be applied with pain. When mixed with escharotics cocaine is anesthetic.

TO REMOVE SMALL CALCULI FROM THE BLADDER IN MALE CHILDREN.

Mr. Thomas Annandale, Professor of Clinical Surgery in the University of Edinburgh (*British Medical Journal* January 2d), presents the following new plan to remove small calculi from male children. He quotes Erichsen to the effect that he scarcely recollects to have met with a middle-aged man who had been operated on in childhood by the lateral method. Mr. Annandale believes that he has overcome the difficulties in the way of using a lithotrite in these cases. He relates then a case of a boy aged $4\frac{1}{2}$, who while under chloroform dilated the urethra by passing Nos. 6, 7, 8 and 9 silver catheters in succession; only No. 9 was slightly grasped by the urethra. Before this instrument was removed four ounces of antiseptic fluid (corrosive sublimate 1 to 4000) were injected through it into the bladder. This catheter being withdrawn a small lithotrite equal in diameter to a No. 8 bougie was introduced into the bladder. The stone was seized and it was then found that by depressing the handle of the lithotrite its vesical extremity, together with the stone, could be readily felt through the abdominal wall immediately above the pubes. The lithotrite being held in position, a small incision an inch in length was made in the middle line of the abdominal wall over the pubes and for a short distance above it. The various tissues were divided until the wall of the bladder was exposed at the point against which the blades of the lithotrite and the enclosed stone were pressing. A little further depression of the handle of the lithotrite caused the extremity of its blades covered by the stretched wall of the bladder to protrude through the wound in the abdominal wall; and a small incision having been made through the wall of the bladder by cutting upon the extremity of the lithotrite, the instrument with the stone were pushed through the wound. The stone was here extracted from the blades of the lithotrite, and the open extremity of a No. 7 India-rubber catheter was seized and drawn into the bladder and along the urethra as the lithotrite was removed, thus leaving a drain for the urine to escape from the bladder. The wound in the abdominal wall was closed by two horse-hair stitches, and a drainage tube inserted into it so as to aid the escape of any urine which might flow from the bladder

wound. Irrigation with corrosive sublimate 1 to 2000 was employed during the operation, and the wound and parts around were covered with a dressing of corrosive sublimate wool. The stone removed was the size of a horse-bean, of uric acid formation. The urine was slightly tinged with blood for the first twenty-four hours. Forty-eight hours after the catheter and drainage tube were removed, and the patient had not the slightest bad symptom. For twelve hours after the removal of the drainage tube the urine came by the abdominal wound; but, after this, it passed almost entirely by the urethra, and the patient was running about the ward, perfectly well, on the tenth day after the operation.

Mr. Annandale claims that this is not simply a supra-pubic lithotomy, but a much less serious proceeding. Its advantages over lateral lithotomy are: 1. That the urethra, prostate and neck of the bladder are left uninjured. 2. That it is a much more simple proceeding, and does away with the principal risks which have occasionally been encountered in performing the operation on children.

Mr. Annandale confesses that it requires some manipulative dexterity to seize a small stone in a male child's bladder, but not greater dexterity than every operating surgeon should possess.

THE INFLUENCE OF INTERMITTENT FEVER ON PREGNANCY AND ON THE FŒTUS.

Behrmann (*Berliner klinische Wochenschrift*, Aug. 24-Sept. 7, 1885) points out that statistics have shown that pregnant and lying-in women enjoy a certain degree of immunity from the effects of malarial poison; but as regards the influence of that poison on the progress of parturition and labor when once it is present in the system, there is difference of opinion, e. g., some obstetricians assert its tendency to cause abortion; others deny such a tendency. Moreover, cases illustrating the influence of intermittent fever in the mother on the fœtus are very rare; Leroux, from observations in eighteen cases, came to the following conclusions: (1) Since the children of women who have suffered from intermittent fever

are born with hypertrophied spleens, it is probable that the fœtus may be infected by the mother. (2) Children born of mothers suffering from intermittent fever often inherit a predisposition to that disease, since soon after birth they are attacked by malarial fever, belonging to the same type as that of the mother. Other similar cases are on record.

Some observations recently made in a malarious district and published by Lvov, are of especial interest; the conclusions he has arrived at are as follows:

(1) Intermittent fever is very common during pregnancy, and occurs more frequently in the second than in the first half.

(2) Pregnancy has no influence over the length of interval between the attacks.

(3) Intermittent fever coming on during pregnancy is difficult to cure, and when recovery has taken place, relapses are very common. Severe attacks may terminate the pregnancy prematurely.

(4) Parturition takes place on the day and at the hour at which the febrile paroxysm usually sets in.

(5) During the first stage of labor, the febrile paroxysm often shows itself; running the same course as during pregnancy. During the puerperal period, also, attacks are very liable to occur, following the same type, except that the intermission is never complete.

(6) Attacks of intermittent fever during the puerperal period do not render the woman more liable to other puerperal diseases.

(7) The fœtus is affected by these malarial attacks as by any other elevations of temperature; its movements and cardiac sounds are affected in much the same way as when the mother is attacked by typhus (typhoid) fever.

(8) A prolonged and severe attack of intermittent fever may lead to the early death of the fœtus.

(9) Intermittent fever in the mother may affect the intrauterine fœtus with the same disease.

Behrmann concludes his paper by recording two cases which came under his personal observation; they are especially interesting, inasmuch as the malarial infection of the intrauterine fœtus was easily proved.

In the first case, the mother had for four months before her confinement suffered from tertian intermittent fever. Labor came on during a paroxysm and progressed favorably. The new-born child

was somewhat cachectic in appearance and weighed about 2800 grms. (6 lbs. 2 oz.). During the first day nothing unusual occurred. But about 5 p. m. on the second day it suddenly began to cry, and severe convulsions set in, lasting twenty minutes, its face becoming very cyanotic. On the cessation of the convulsions a hot stage came on, lasting three hours. Pulse 160; temperature 40.5° C. (104.9° F.) On examination the splenic region was found to be sensitive, the baby crying when it was touched. The lower edge of the spleen could not be felt 1½ inches below the ribs. On the third day post-partum, the child was well; on the fourth, at almost the same hour, a similar attack came on as on the second with, if possible, even severer symptoms. On the sixth and eighth days attacks again recurred, but much slighter, quinine having been administered in the interval. The child began rapidly to improve, and finally quinine entirely cured the attacks. It was evident that the child had been infected during intrauterine life, since it was nursed not by its mother, but by a robust wet-nurse; moreover, its attacks came on on similar days, and at the same hour, as those of the mother.

In the second case, the mother had suffered for three months before her confinement from quotidian fever. The child when born was quite healthy, but on the second day, and at the same hour as the attacks of the mother used to set in, it became restless, cried and became convulsed. Its spleen was found moderately enlarged. On the next three days similar attacks occurred at 3 to 3:30 p. m., which was the hour at which the maternal paroxysms came on. This case differed from the first inasmuch as no complete intermission of the symptoms took place, the temperature in the intervals varying from 39° to 32° C. (102.2° to 89.6° F.). Behrmann considers, however, that the enlarged and sensitive spleen, the regular exacerbations of the paroxysms, the malarial attacks in the mother, and the disappearance of the symptoms in the child on the use of quinine; were sufficient to establish the diagnosis that it was suffering from quotidian ague. This child also was not suckled by its mother; it was not brought up on cow's milk.—*American Journal of the Medical Sciences.*

CORRESPONDENCE.

GOLDSBOROUGH, N. C., January 11, 1886.

Dr. THOS. F. WOOD, *Editor North Carolina Medical Journal*:

In the last NORTH CAROLINA MEDICAL JOURNAL I see an article on "*Urtica Dioica* (Stinging Nettle) as an Hæmostatic." On reading the article I remembered that I had copied in my note-book some years ago that Dr. E. A. Anderson, of Wilmington, had recommended the *Urtica Urens* as Hæmostatic. My note-book referred me to the *Journal of Materia Medica* (Tilden's Journal), Vol. IX, No. 8, 1870. There I find the following from Dr. Anderson: "Dr. DeRosset, Professor of Chemistry in the University of Maryland, sent me his translation of Bouchardt's "Annual Abstract of Therapeutics and Materia Medica." On page 97 of this work is an article by Benavente on the use of the Nettle in passive hæmorrhage, and in a note by Dr. DeRosset reference is made to cases reported by Dr. W. B. Johnson, of Alabama, in regard to its use. Dr. Johnson is also quoted in the *United States Dispensatory* of 1854, page 1402, in which he found it efficacious in uterine hæmorrhage. I was thus led to experiment with it and report four cases, in hopes it may be the means of again introducing a useful plant to the notice of the profession." Then follows the report of cases, after which the Doctor says: "I might cite many other cases, but deem these sufficient to attract attention to an agent which I think will be found very useful by the profession at large, and which is well worthy of attention."

Very shortly after reading the above I was called in great haste to see Mrs. Jos. Lanier, said to be bleeding to death from a miscarriage. I went prepared to tampon the vagina, but when I went to my buggy to get my case of instruments I found my speculum broken to pieces. What was I to do? The woman was almost in extremity. I had no faith in the preparation of ergot I had with me. Fortunately I remembered the Nettle, and, in fact, had seen some of it with its white bloom as I came through the field. I directed the husband to go and dig me a few of the roots, and after washing them gave them to the woman to chew, directing her to swallow the juice. As they are not at all unpleasant to the taste, but rather the reverse, I had no difficulty in getting her to do this, and in a short time had the gratification of seeing the violent hæmorrhage cease and my patient out of danger.

THOMAS HILL, M.D.

*ANSWERS TO CORRESPONDENTS.

Dr. J. T. S. asks :

"1. Has a man who is not a licensed druggist the right to sell whiskey or brandy when the purchaser presents a prescription from a regular practising physician?"

"2. Has a druggist the right to prescribe for any patient, and then fill his own prescription?"

"3. Has a druggist the right to use a physician's prescription for another patient without permission from the doctor who gave the prescription, or refill it for the same patient?"

"4. Can a regular practising physician take a physician in with him who is or is not a graduate—in school now—and who has no license to practice? Has a regular licensed physician a right to let such a young man practice with him and fill calls for him?"

In reply to the *first query*, we answer: The Code of North Carolina says (Sec. 3137): "No person, unless a registered pharmacist * * * shall open or conduct a pharmacy or store for retailing, dispensing or compounding medicines or poisons, nor shall anyone not a regular pharmacist prepare physicians prescriptions, except under the supervision of a registered pharmacist: *Provided*, nothing herein shall prevent the sale of patent or proprietary medicines, quinine, Epsom salts, castor oil, essence of peppermint, paregoric, laudanum in original package, calomel, camphor or sweet oil."

Sec. 3702 says: "Any grocer, *druggist* dealer or other person who shall sell spirituous or malt liquors, wines or cordials, in any quantity, if the same or any portion thereof shall at any time be drunk upon the premises where such liquors, wines or cordials are sold, shall be considered a retail dealer within the meaning of this section." The last quotation has only indirect bearing upon the query.

In reply to the *second query*, a druggist, if at the same time a licensed physician, may prescribe and fill his own prescription. But whether lawful or not, it is clearly a violation of the spirit of the

*So many letters of enquiry touching upon very similar questions are sent us, that hereafter we will take this method of replying to them for the benefit of all concerned.

law, as we understand it, for a druggist to prescribe. It is not at all uncommon for druggists to prescribe even for difficult cases, and fill their own prescriptions. Their only escape from the legal penalty would be upon the ground that they charged no fee. The question would arise naturally in the mind of a physician, Would not the profit on the drugs sold be "fee or reward" in the strict meaning of the law.

Reply to *query three*: The right of ownership in a prescription, we believe, has not been legally settled in this State. Ordronnaux* says: "Although the party paying for the prescription has an undoubted property in the paper and a right to the personal use of the formula, it is clear that he "acquires thereby no absolute property in the latter. That he may use it as often as he pleases cannot be doubted, for the use is precisely what he has purchased and paid for." Further on the same author adds (p. 300): "The fact that a prescription has been once compounded and a copy of it, or the original, deposited in the hands of an apothecary, does not convert it into public property which anyone may use." * * * "If a prescription be property (p. 301), the use of which the patient has purchased, it is only the patient who can ask to have it compounded. And as we have seen that this right gives him no authority to publish it, it follows as a necessary corollary that the apothecary cannot acquire any better right in the premises than belonged to the patient. The apothecary may undoubtedly make a copy of "the prescription, to be used in case of necessity to vindicate his conduct in compounding it, and should, as a duty to himself and the public, not omit to do so, but he cannot, legally, re-compound it at will for any stranger or third party, since that would be equivalent to a publication of it without first obtaining permission from its author." And here is a sentence it is necessary to add: "Of course if the prescription has no signature, or no name of patient, it is simply an anonymous composition, which anyone may appropriate, since there is no evidence of ownership."

Reply to *query four*: A legally authorized physician cannot impart any authority to practice to a physician who is not licensed. Doubtless a legalized physician could employ an assistant under his own eye and direction, but this assistant could not legally prescribe or do any service for fee or reward, even in the office and under the eye

*The Jurisprudence of Medicine, John Ordronnaux, M.D., LL.D., p. 297.

of a licentiate. Of course he could not attend calls for another physician who was to receive the pay therefor.

Reply to Dr. O. H.

Query—"Were meetings of County Boards of Health for regular biennial elections held on Monday, January 4, 1886?"

The New Hanover County Board of Health met and reelected Dr. F. W. Potter Superintendent of Health for 1886-1887. Also the Cabarrus and Wake Boards of Health had meetings, electing respectively Dr. Robert S. Young in the former, and Dr. James McKee in the latter county, Superintendents for the full term. The State Board of Health, in reply to enquiries about the legal time of meeting, construed the statute as indicated above.

INCOMPATIBILITY OF CHLORAL HYDRATE WITH POTASSIUM BROMIDE.—"The Medical Press of Western New York" says: "In a paper recently read before the Massachusetts State Pharmaceutical Association, Prof. Markoe stated the results of a series of experiments upon the combination of chloral hydrate and potassium bromide in the presence of alcohol. He found that in a two-ounce mixture containing ninety grains each of these agents and three drachms of alcohol, present in paregoric, other tinctures, or alone, the balance being made up with syrups or water, a separation of the fluid into two layers always took place, the upper one containing the chloral in the form of an alcoholate. When the potassium bromide was replaced with sodium bromide, sodium chloride, or magnesium sulphate, the same separation took place; but with ammonium chloride, ammonium bromide, potassium nitrate and calcium bromide, the chloral solution was not disturbed. At the close of his paper he says: 'The practical lesson to be learned from this incompatible prescription, is, that alcoholic preparations should not be prescribed with chloral hydrate, especially not in connection with the bromides of potassium or sodium, because, if the solutions used are at all concentrated, the chloral will separate as alcoholate, float on the surface, and a great risk will be incurred of giving a large overdose; the patient having received no caution with regard to the necessity of shaking the contents of the bottle before taking a dose.'"—*New York Medical Journal*.

NOTES.

DOVER'S POWDER, although it causes sweating in healthy persons, tends to restrain it in phthisical patients.—*Brunton*.

PROF. JOHN C. DRAPER, M.D., died in New York, of pneumonia, after a brief illness of four days. He was a teacher of chemistry of great ability.

THE OLEATE OF COCAINE applied to the eye is exceedingly painful, and is not warranted, even if we weigh against it the amount of anesthesia which follows it.

DYSTOCIA FROM RIGOR MORTIS IN THE FÆTUS.—Dr. Thomas Davidson reports a case in the *British Medical Journal* January 2d, of a fetus rigid from rigor mortis that it was with difficulty extracted by the forceps. Three hours after birth rigor mortis passed off.

EVERY lover of the best medical literature will regret to hear of the suspension of the *London Medical Times and Gazette*. It certainly attained the highest standard of excellence among its contemporaries, and will be greatly missed by the profession of all countries.

AMERICAN RESINOUS EXTRACTS.—Baptisin, sanguinarin, juglandin, playtolaccin, euonymin and others, are being largely experimented with in England and France, the last mentioned one entering largely into advertised preparations among London pharmacists. They all deserve more attention than they have received at home.

THE AMERICAN LANCET is the new title of our able contemporary, the *Detroit Lancet*. It appears in a handsome dress, on excellent paper, with clear type, and in form somewhat like the *Journal of the Association*. This is one of our exchanges we always read carefully, because it has always shown editorial work of a superior character.

GLYCOSURIA OF LACTATION.—Dr. W. J. Sinclair, in the *Medical Chronicle* January, 1886, contributes a well studied article on the above topic. For a long time he has habitually examined the urine of women with engorged breasts from any cause whatever during the period of their functional activity, and has never failed to find sugar in greater or less amount. "The explanation of the physiological

process, on which the presence of sugar in the urine during engorgement of the breast depends, seems evident. We have analogous resorption in obstruction to the flow of bile, and probably also in retention of urine. The milk is retained in the ducts, and at the very innermost point of its formation in the acini; when the tension reaches a certain grade in its relation to that in the blood-vessels and lymphatics, transudation of the transudable constituents of the milk into the lymphatics begins. These constituents of the milk appear to be carried unchanged through the kidneys. Upon this point there is room for difference of opinion and further enquiry.

THE AMERICAN JOURNAL OF THE MEDICAL SCIENCES (sub-title—*The International Journal of the Medical Sciences*).—This old quarterly, the sole survivor of the many publications of a similar character which were once considered indispensable to the literary man of medicine, appears in this issue (January, 1886,) under the editorial management of I. Minis Hays, M.D., and Malcolm Morris, F.R.C.S., London. The contribution of original articles in this number is alternately by a British and an American writer, and the department of editorial summary of the progress of medical science is about equally distributed between the two countries. The American Journal is a worthy leader in all the substantial work in the medical world, and we agree with a remark we heard uttered not long ago, that it argues badly for the literary and scientific taste of the doctor who does not find pleasure in studying closely the quarterly installments of medicine which it prepares for us. We commend especially to our readers the very able review by Dr. J. C. R[eeves] on General Anæsthesia and Anæsthetics. It is not immoderate praise to say that so far his statement of the case is unexcelled.

THE MITRAL CARDIAC MURMURS.—The study of the mitral cardiac murmurs at the present time is of importance to every medical practitioner, as well as of interest to those whose attention is especially directed to the diseases of the heart. In an able article in the January number of *The American Journal of the Medical Sciences* Dr. Austin Flint reviews our existing knowledge of these murmurs. He holds that there are four mitral murmurs, namely, (1) the systolic regurgitant, (2) the systolic non-regurgitant or intraventricular, (3) the pre-systolic, and (4) the diastolic. Each of these four murmurs has dis-

inctive characters which individualize it. Two, three, and even all four may be combined in the same case. This statement, as will be seen, applies to the systolic regurgitant and to non-regurgitant murmurs. The names post-diastolic and post-systolic, proposed by Hayden, seem to the author unnecessary refinements, and, therefore, objectionable. If the reader would stop to reflect upon the inquiry whether the mitral murmurs offer topics for consideration and discussion or sufficient interest and importance to occupy the thirteen and one-half pages which Dr. Flint devotes to them, let him refer to that portion of the elaborate and able work on diseases of the heart, by Hayden, which treats of the cardiac murmurs. He will there find a statement of the defects in our existing knowledge, together with differences of opinion in regard to the number of the mitral murmurs, their characters, their significance, and the modes of their production, which must convince him that they afford scope for an article extended much beyond the limits to which the author restricts himself. In fact, the object of the article is to present certain conclusions and suggestions without attempting to consider the subject comprehensively and fully.

ON THE DILATATION AND HYPERTROPHY OF THE HEART, WHICH ARE NOT PRODUCED BY CHANGES IN THE VALVES.—That all the examples of cardiac hypertrophy and dilatation which we meet with in practice are not due to valvular lesions, is a proposition which everyone will admit. That attention has been called to such non-valvular cases by a number of authors is evident to anyone who reads medical literature. And yet the recognition of these cases, and their treatment, have not become matters of ordinary practice. Dr. Francis Delafield has been led, therefore, in a valuable paper in the January number of *The American Journal of the Medical Sciences*, to group together the cases of cardiac dilatation and hypertrophy not due to valvular disease; to subdivide the group into its appropriate classes, and to state the characteristics of each class. Under the heading of dilatation of the ventricles occurring without discernible cause, Dr. Delafield gives sixteen clinical examples. Most of the cases were males, and many of them young adults. The invasion of the symptoms was sudden in seven cases, gradual in five, and in three was not stated. The disease ran in some cases an acute, in others a chronic course. In his own cases the shortest period was twenty-four days, the longest fifteen months,

The heart's action was irregular and feeble, the physical signs of dilatation were evident; in some of the cases there was a systolic murmur, in others none. The dyspnœa was in most of the cases a marked symptom. Dropsy was developed in the more protracted cases, but not in those of shorter duration. The urine was diminished in quantity, the specific gravity from 1.010 to 1.026: there was no albumen present, or but very little. The dilatation regularly involved both ventricles, and hypertrophy was the exception. The lungs, liver, stomach, spleen and kidneys regularly presented the condition of chronic congestion which belongs to marked valvular lesions of the heart. The course of the disease was from bad to worse, and even the symptoms were but little alleviated by treatment.

HYDROPHOBIA.—M. Pasteur has recently read before the Academy of Medicine in Paris a paper on a method for preventing hydrophobia after the bite. The method consists in the preparation of a virus which can be inoculated into the subject bitten, and which can be cultivated so as to possess different degrees of virulence. The weakest strength is first injected beneath the skin of the subject operated on, and every forty-eight hours a stronger virus is injected until the most virulent fluid is reached. This is done during the incubative period, and as soon after the bite as possible, so that before the opportunity is given to the virus of the bite to produce its effects, immunity is afforded the subject. M. Pasteur found that when a portion of the spinal cord of a dog which had died of rabies was injected beneath the dura mater of a rabbit, this animal was infected with the same disease at the end of fifteen days. The spinal cord of the rabbit contains the virus of rabies equally distributed throughout its length. A portion of the spinal cord, after removal with antiseptic precautions, is placed in a bottle containing caustic potash to keep the air dry, and it is found that the virulence gradually disappears at a rate proportionate to the lowness of the temperature. Thus, spinal cords are used which have been kept different periods of time, and a bouillon prepared from each which can be injected. M. Pasteur's experiments were necessarily confined, in the first instance, to the lower animals, and the two or three persons who, after exposure to the bites of rabid dogs, have since been successfully inoculated by him, cannot as yet be

regarded as affording sufficient evidence of the value of the treatment. Nevertheless, there is reason for hoping that a more extended experience will not lead to any less satisfactory results than those already obtained.—*American Journal of the Medical Sciences.*

APPLICATION TO ALLAY ITCHING OF THE MUCOUS MEMBRANE.—M. Bazin (quoted in *Union Médicale* December 10, 1885) remarks that the same applications will not answer for all the mucous membranes indiscriminately. For the ocular conjunctiva he advises a collyrium of 1 or 2 parts of copper sulphate to 5,000 of distilled water. For tingling of the tongue he recommends a gargle of from 10 to 30 parts of Lebeuf's "coal-tar saponiné" (a preparation of coal-tar and quillaya) to 300 of water. For itching within the nostrils, injections of a 1-to-1,000 solution of carbolic acid, with or without the addition of glycerine, are advised. For the mucous membrane of the vulva solutions of corrosive sublimate and of mercury nitrate are particularly efficacious. Glycerole of tar may also be used, or, better still, glycerole of tannin or of starch.—*New York Medical Journal*—*Maryland Medical Journal.*

SPARE PERSONS DO NOT BEAR ALKALIES.—It is not, perhaps, very generally known that persons of thin flank do not bear alkalies well. In spare gouty persons (as, indeed, in spare bilious persons) alkalies are not well borne, as a rule. In such cases it is well to resort to hepatic stimuli rather than to uric-acid solvents: the alkaline lithia and potash. Even some stout and stalwart persons cannot tolerate potash. Lithia is less depressant than potash, but still it is too lowering for some persons. In such cases the line advocated above will give more satisfactory results. Phosphate of soda is an hepatic stimulant, and, where a mineral salt is indicated, is often most useful in liver-disturbances. In conditions of lithæmia and cholæmia it is of service, and it will often clear away the remains of jaundice in a satisfactory manner.—*Medical Times.*

HERPES ZOSTER AND PARALYSIS OF MOTOR NERVES.—The combination, as yet not very frequently observed, of herpes zoster (the expression of disease affecting sensory or trophic fibres) with the paralysis of motor nerves can be traced back in one series of cases to a central lesion, in which the process from the trophic nerve-

tracts has encroached upon the motor centres, or the reverse. In another series of cases a peripheral mixed nerve is concerned. Besides these, however, there are still cases which can be referred to neither of these sources, and in which only the most external periphery of the nerve is affected. To this class belong those cases of herpes zoster of the face or the neck which occur in connection with paralysis of the facial nerve. To seven such cases collected by P. Strübing (*Deutsches Archiv für Klin Med.*, Bd. 37, 1885) from medical literature, he adds one under his own observation. A man fifty-two years of age was exposed to the action of a cold draught of wind upon his face. A few hours later a neuralgia developed upon the left side of his face, which was followed by herpes, and a few days later by a paralysis of all the facial branches of the left facial nerve and the left chorda tympani. As regards the question of the connection here between the zoster and the paralysis, it cannot be set down as purely accidental. Reflex paralysis can scarcely be taken into consideration, because the facial paralysis presented the characters throughout of a peripheral and not of a central affection. Quite as unlikely, according to the reporter, could the view of Eulenberg be adopted, that in facial paralysis an eruption of herpes may be induced by irritation of the trophic fibres in the facial nerve (which possibly come originally from the vagus), because one and the same morbid agency would then have to cause irritation of the trophic portion of the motor nerve. The connection in this and similar cases may be, with the greatest probability, sought for in some inflammatory process extending through the connecting fibres from one nerve to the other, so that a peripheral affection of a sensory nerve (which leads to herpes) will produce a peripheral facial paralysis, and *vice versa*. In other cases the connection may be so clear that one and the same injury (such as exposure to cold) may affect both the trigeminus and the peripheral branches of the facial, and develop herpes zoster and paralysis coincidentally.—*Deutsche Medicinische Zeitung*, December —*Medical Times*.

OBITUARY.

HENRY W. FAISON, M.D.

One more name has been taken from the roll-call of living members in our State Society and added to the list of those "gone before." The medical profession of North Carolina has lost one of its oldest and most honored members in the death of Dr. Henry W. Faison, of Faison. He died December 23d of the year which has just closed.

Endowed with an indomitable energy, and possessed originally of a constitution conspicuous for its vigor and strength, he made the mistake of overtaxing himself physically, with the result that is inevitable—death from exhaustion of vitality. His last sickness—an aggravated dyspepsia due to an over-exerted digestive apparatus—had kept him confined to his room for nearly a year, and his death, which was quiet and painlessly peaceful, was not unlooked for by his family and friends; nor was he ignorant of his condition, for with a knowledge born of experience and a well-stored mind, he saw and prepared for his approaching end, connecting himself with the Presbyterian Church only a few months before his death.

Dr. Faison was probably one of the oldest members of the profession in the State. He was certainly one of the oldest members of the State Society, for his name, along with those of Dixon, Kelly, Swann, Satchwell, Curtis, Shaw and others, most of them gone before him over to the ranks of the "silent majority," stands in the "Transactions" as far back as 1852. He was sixty-three years old at the time of his death, having been born at Faison, Duplin county, June 30, 1823.

Part of his educational instruction he received from the elder Bingham, at whose school he was a student in 1838-39. From 1840-42 he was a student at Chapel Hill, but left before finishing his course. Dr. James H. Hicks, who practiced medicine with favor and success in Duplin county for a number of years, was his medical preceptor. He was graduated in medicine from the University of Pennsylvania in 1844, and his life, from the time of his graduation till its close, was spent in the active practice of his profession at his birth-place.

Professionally Dr. Faison was the master-mind in his community in his day, and for years to come it will bear the impress of his individuality. Born of an old family, with wealthy connections and wealthy himself, he wielded a *social* influence in his county second to none, and himself a man of fine physique and polished address, his now vacant sphere in society will remain unoccupied for sometime yet to come.

Peculiar in an aversion to places of public honor or emolument, he never held an office in the State Society of medicine, though

repeatedly solicited to do so, but the "Transactions" have upon them few names which appear oftener or with more influence than did his, and the absence of no member will be more keenly felt at the meeting in May next.

A long and busy life has drawn to a close—another medical landmark has passed away. Peace to his ashes. W. B. P.

READING NOTICES.

A. A. MELLIER, of 709 & 711 Washington Avenue, St. Louis, is the Western and Southern Agent for the pure Bovine Virus, from the celebrated Lancaster County Vaccine Farm. Success guaranted in all primary cases. Only virus from purely grain-fed stock. Put up in original glass packings. Send for circular containing prices and discount.

—(o)—

Mr. L. Chamberlain:—Dear Sir:—I have now been using the Water Closet Seat you sent me for more than thirty days, and find it more valuable than you recommend it to be. It certainly is a wonderful, simple cure for Piles. Every household should have one at least. It is the best and most valuable expenditure of money I have ever known and the cheapest investment for the greatest benefit. I would not be without one.

Truly yours, ISAAC A. SUGG, Attorney at Law.

Greenville, N. C., Nov. 26, 1884.

—(o)—

UDALL, KANS., July 23, 1885.

Mrs. H., age 13, married one month, three months previous was taken with nervous attacks, lasting at first but a few moments, which increased in severity till I was called in July 10th, had been confined to her bed two days, and unconscious most of the time; her general condition was good. I prescribed Celerina in teaspoonful doses every three hours; in three days my patient was on the streets, and she said she was feeling as well as ever; it acted beyond my expectations. I have used Acid Mannate in constipation after confinement—it acted like a charm, being pleasant to take and painless in its action. Truly yours,

G. E. KNICKERBOCKER, M.D.

NORTH CAROLINA MEDICAL JOURNAL.

THOMAS F. WOOD, M. D., Editor.

Number 2. Wilmington, February, 1886. Vol. 17.

ORIGINAL COMMUNICATIONS.


CLINICAL LECTURE.

By R. J. LEVIS, M.D., of Philadelphia.

SEVERE BURN OF SIDE—SKIN-GRAFTING.

This young man has been in the hospital for sometime, suffering from a severe burn, caused by hot iron falling on him, involving the whole right side, extending from the crest of the ilium to the clavicle. The dressing used has been carbolized oxide of zinc ointment. I must call your attention to a very important practical point in reference to these severe burns. We must carefully watch the patient for a long time, especially when the trunk is involved, because we are quite apt to have suddenly set up an intestinal complication, an ulceration of the small intestine with fatal results. Why this occurs I cannot explain, but I know that it does very often occur. Usually it does not supervene until more than a month after the burn, while occasionally we may have pleurisy or some other intra-thoracic complication. You must look out for diarrhœa, which is the premonitory symptom of the intestinal ulcerations. It

has now been eleven weeks since the burn, and you see this enormous, raw, granulating surface, and you observe how terribly emaciated the patient is from this terrible drain on his vitality, and you will also observe the expression of great suffering on his face. Clam-grafting was tried in this case, but it failed, and to-day we propose to try skin-grafting. Remember that an ulcer heals from the periphery towards the centre, and by placing little islets of skin on this large granulating surface we start numerous centres of cicatrization, which will hasten the reparative process. The method of dressing is first to wash off the surface of the wound with carbolyzed water, by means of a Davidson's syringe attached to a long tube; after which the zinc ointment is used. There is here a good granulating surface, and the grafts ought to take well. There is more mortality and greater suffering from burns than from any other surgical accident; no other injury compares, in the pain produced, to burns. The grafts are taken from the sound side. Be sure to get the cuticle side up. When taking the grafts you must not draw blood. I use a fine needle to lift the skin and knip off a very minute piece with scissors. This I consider to be the neatest and most satisfactory way to graft; some operators remove a large piece and then subdivide it, but I very much prefer my method. I place these grafts two inches or more apart. So large an ulcer cicatrizes very slowly. I had a man here once whose whole back was burned from the nape of the neck to the hips; he fell asleep near a lime-kiln; the fumes anæsthetized him, and the lime, running over on his back, terribly burned him. The wound healed very rapidly, but after awhile he had a chill and fever, the cicatrization broke down and I was compelled to resort to skin-grafting. I have in this hospital made an upper eyelid from the skin of a rabbit, with entire success. I do not know how low down in the scale of animal life we can go for grafts. Now, having placed about twenty grafts, I will not at once apply the ointment and dressing, for this might displace the grafts; I will lay over the side a piece of wax paper until the plasma exuding from the surface dries and holds the grafts in position, when, after an hour or two, the regular dressing will be applied. These grafts can be taken from other persons, but I do not like this plan, because of the possible danger of conveying some other disease thereby. We can take grafts from a leg that has been amputated even for as long a time as twenty-four hours. Do



not imagine that your graft is not going to take if you notice the cuticle peeling off, because this will often happen, even where the true dermoid tissue remains and takes hold.

SUSPECTED INTRA-CAPSULAR FRACTURE OF THE FEMUR.

Here is an old man, who has just been brought in in the ambulance. While hurrying along the street, he slipped on the ice and fell, and found himself unable to rise. When examining an injury about the hip-joint always take a general survey and note the physiognomy of the parts first. Th's limb lies turned outward on the bed, which, together with the age of the patient and the trivial nature of the accident, made us suspect an intra-capsular fracture. Remember that when this accident is caused by slight violence there is not usually much shortening, because the capsulæ holds the fragments in position, but if the violence be great and this membrane be ruptured, we will have shortening. But in this connection we must also bear in mind the usual disparity in the length of even normal limbs, very few pairs of limbs have an exactly equal length. When we measure we must not take the anterior superior spinous process of the ilium for our guide, as the books tell us, for this is an uncertain point, but we must select the notch just below it and at the other end the notch just below the inner malleolus. But remembering the disparity in natural limbs, I would attach very little importance to a very slight shortening. Now, when we measure we find the affected limb apparently longer than the other. So I ask another gentleman to measure it, but he finds the same—it is about half an inch longer. I look to see if an obliquity of the pelvis would account for this, but I find such a very slight obliquity that it cannot be taken into consideration. I knock on the sole of the foot, but it causes no pain. He tells us that he was not lame before this accident, and never had any previous injury. If there was a fracture, we ought to have abnormal rotation and I think we have, but I am not willing to venture a positive opinion without etherizing the patient. The diagnosis could, of course, be verified without ether, but it would be a very painful procedure, and again the etherization will rid us of the confusing factor of muscular contraction. The general expression and the eversion of the foot point to intra-capsular fracture, but in such a case we should have rotation without limit. But I find too much limit to this rotation both ways,

equally as much as in the sound limb. Now, for a final test, I place him on his face, and if there be such a fracture I can turn the leg upwards, in some cases, until it reaches the back. I cannot do so here, and having made this final test, am forced to the conclusion that the bone is not broken. I have used here the A. C. E. mixture, which is composed of alcohol, one part, chloroform, two parts, and ether, three parts. This mixture has been in use for twelve years and I know of no fatal case from its use; it produces hardly any excitement. It is really a chemical solution; the alcohol serves the purpose of keeping the ether in solution in the chloroform. From the ordinary mixture of chloroform and ether there is apt to be an irregular evaporation of one or the other ingredient, but when the alcohol is added the evaporation is uniform.

UNUNITED FRACTURE OF THE FEMUR.

This case possesses extraordinary interest. The man has been here more than three months. He was injured in a mine by a fall of coal, from which he sustained a simple fracture of the femur and a compound fracture of the arm. The arm healed nicely, but the bones of the femur have failed to unite in this long time. Now, the question always arises in these cases, whether we have a false joint formed or whether it is merely delayed union. The causes of delayed union may be local or general. Of the local we may have an excessive degree of inflammation; the presence of a foreign body, as of a bullet or a fragment of clothing driven in between the fragments; a common cause is the interposition of a piece of muscle or tendon between the fragments, for we must remember that the fracture of a long bone is usually oblique, which would favor such interposition; for the fragment may be forced into the muscular tissue, and if it is not reduced very early such muscle may so remain. This is the most common cause. I have resected the femur and found a piece of muscle reduced to fascia. Another local cause is the tearing of the nutritious artery of the part. A common local cause in the case of the humerus is the *tight* application of splints and bandages, which shut off the circulation. Of the general causes we may note syphilis, pregnancy (I do not know why), some cachexia, extreme debility and scurvy. Syphilis is a very common cause, and the mercurial treatment of non-united fractures has to be sometimes

resorted to. In this case, while I can move the fragments, yet I can feel some callous, so that I am inclined to think that this is truly a case of delayed union. During the early part of this man's illness he was much debilitated, and to this fact I am inclined to attribute the non-union. Union sometimes occurs by means of a band of fibrous tissue, scattered throughout which are small particles of ossific matter, while again there may be quite a true joint, lined with a synovial membrane. There is also what is called a flail-like union, where the ends of the bones become pointed and a band of fibrous tissue is stretched between them. As I think that there is an attempt at union here, I will allow nature more time. I will encase the whole limb and the lower part of the trunk in a dressing of silicate of soda and get him out of bed. Union will sometimes be delayed on account of the horizontal position of the leg, and will proceed rapidly when it is made to hang down. If union does not then occur, I will etherize the patient, break up what adhesion has taken place, and rub the ends of the bones together to irritate them, and let nature start all over again. Sometimes it is necessary to use drills.

AMPUTATION OF THE LEG.

This man had his leg badly crushed and it was amputated the day before yesterday. A large anterior and a short posterior flap was made. Now we will dress it, and you notice how I introduce the nozzle of a Davidson's syringe into the wound. The syringe is attached to a long rubber tube coming from a bottle containing a solution of corrosive sublimate. I never amputate the leg above its middle; if the injury is such as to necessitate removal at a higher point, I amputate above the condyles of the femur. In the upper third of the leg we have a great mass of muscles to cut through and a great deal of tissue for subsequent suppuration, which conditions we do not find above the condyles of the femur. I saw through the condyles and clip off the edges.

This operation was performed under antiseptic precautions, yet we did not have all the complicated paraphernalia, which I think has been the bane of antiseptic surgery; we did not use the spray, but at all times, when the wound is exposed, it is thoroughly irrigated with solution of corrosive sublimate. Now you see the surgeon applying a dressing of iodoform; it is an excellent disin-

feetant, but smells most horribly, and the surgeon unfortunately carries this odor about with him. Dr. Keyes, of New York, has been compelled to abandon its use in his venereal practice on this account. One evening Dr. Van Buren and he went to a house together; when they entered the odor of iodoform was noted and Dr. Van Buren said: "There is one of your patients in this house, Keyes, for I *smell* him. One danger of large anterior flaps is that they are very easily devitalized, even by a moderate degree of pressure. Now we let the limb rest on binders' board and this on a pillow. This whole method I consider a very perfect plan of treatment.

BALTIMORE GYNÆCOLOGICAL AND OBSTETRICAL SOCIETY.

The regular meeting of this Society was held January 12, 1886. The President, George W. Miltenberger, M.D., was in the chair. William Moseley, M.D., Secretary.

Dr. L. E. Neale read a paper entitled "Two Cases of Dystocia," of which the following is an abstract:

Case 1.—A white primipara, age 25 years; in labor at term with living child, presenting L. S. I. A.; breech movable above superior strait and unaccompanied by inferior extremities. Descent failing, the attending accoucheur resorted to chloroform, manual extraction, Elliot's forceps, with an unsuccessful result. Another physician also tried, with the patient under chloroform, (a) manual extraction, (b) to pull down a foot. Dr. N. was called in consultation, and after many trials, including the use of Tanier's forceps, which slipped, finally succeeded in bringing down a foot and extracting an asphyxiated child, which was restored by Shultze's method. Mother well. The Doctor called attention to the use of (1) Barne's method of decomposition; (2) the obstetric forceps in such cases of difficult *frank* (Pinard) breech labors. We referred to Tanier's explanation of the cause of difficulty in engagement and disengagement being due to the legs *splinting* the trunk, and thus preventing flexion of the same, and we thought that this fact might

indicate the propriety of Barne's plan of treatment. He cited several authorities, and agreed with those who considered this method difficult, if not dangerous, when the breech occupied the pelvic cavity, and he was of the opinion that manual extraction directly upon the breech should not be utterly ignored. Most recent authorities sanctioned the use of the forceps in *frank* breech cases, Olivier declaring that the instrument may be applied to the breech, even at the pelvic brim; Lusk particularly recommended the Tarnier forceps, and Dr. N. thought the instrument should be tried before resorting to more dangerous instrumental measures.

Case 2—Was one of contracted pelvis occurring in an Irish woman, 30 years of age, in labor at term with third child. Her two former labors were terminated by forceps operation, the child dying on each occasion, and in this, her third labor with child, presenting vertex R. O. I. P.; head movable at brim; forceps and version both repeatedly failed, and the child here also died during the accouchement. Dr. N. was then called in consultation, and with great difficulty succeeded in delivering by craniotomy a 10 lb. child. The puerperium was normal. The external pelvic measurement were normal; the internal conjugate was about $2\frac{3}{4}$ inches, the symphysis pubis was about $2\frac{1}{2}$ inches long and had an exaggerated inclination, and there was, moreover, a marked thickening of the pelvic bones. The entire build of the woman was short, stout, massive and powerfully muscular, although there was no sign or history of rachitis. Dr. N. preferred version when practicable, to high forceps in contracted pelvis not less than $2\frac{3}{4}$ inches in smallest diameter, and he cited authority in support of this view. In such cases as labor at term with living child, he would at once resort to version if practicable; if impracticable, high forceps cautiously, and failing in this, craniotomy—with dead child presenting head at the brim, craniotomy at once. If such cases should be seen early enough, labor should be induced by Krause's method (introduction of a bougie into the uterus) about the 32d or 34th week of gestation, and even then, if *necessary*, deliver by version.

Dr. H. P. C. Wilson said he had nothing to offer in regard to Dr. Neale's paper except words of commendation, and he was very ready to accept the teachings advanced. In his own practice, in cases of presentation of the breech demanding interference, he always brings down a foot. If the breech is engaged in the

superior strait he pushes it up into the uterus and brings a foot down, even if it is at the fundus uteri. He never exerts tractive in the groin, either with his finger or the blunt hook, and never uses forceps in such cases. With greater experience turning grows more and more in his favor.

He referred to the confinement of the wife of a friend in Copenhagen, in which case the head presented. After prolonged effort and failure with forceps, the child was removed by embryotomy. He felt certain from the account he received that, had turning been resorted to early, there would have been very fair prospects of saving the life of the child.

Dr. B. B. Browne had succeeded twice lately, in delivering the child with Tarnier's forceps in difficult presentations, where the membranes had been ruptured several hours, the vagina hot and dry, and the breech firmly fixed in the superior strait. In a similar condition, several years ago, he had applied Elliot's forceps, but it slipped and failed to deliver the impacted breech. In all cases where the membranes are unruptured, or where the breech is not firmly wedged in the pelvis, he would prefer bringing down the feet rather than using forceps.

In reply to a question Dr. B. said he applied the forceps in these cases to the sides of the pelvis of the mother and without reference to the portion of the breech upon which the blades would press.

Dr. Neale, in reply to a question, said that in the first case reported the blades of the forceps clasped the child over its hips. He thought, however, that the forceps would have a better hold if one blade was over the sacrum and the other over the anterior aspect of the opposite thigh, which is the method recommended by Dr. Lusk.

Dr. Thomas Opie highly approved of the teachings set forth in Dr. Neale's paper. In practice he always made due effort to bring down *both* legs in decomposing the impacted breech or turning the child. The hand grasping both knees or one knee or thigh, has always a more secure hold than by a foot, or even both feet, and the tractive acts more directly and efficiently on the body.

Dr. Neale wished to say in regard to Dr. Wilson's remark that he "always went for a foot" in breech cases requiring interference, that he believed there were many cases in which it was practically impossible to bring a foot down, as when the breech already occu-

pied the pelvic cavity and could not be pushed up into the uterus so as to free a foot.

Dr. Thomas Opie read the history of three cases, as follows :

Case 1—PREGNANCY COMPLICATED WITH LARYNGEAL PHTHISIS WITH SUBSEQUENT CONFINEMENT.

Mrs. M., age 30, primipara, had suffered from severe pneumonia three months prior to conception. A brother had died of phthisis at about her age. Laryngeal phthisis set in about the middle of pregnancy. At the expiration of her eighth month there was great dyspnœa—pulse 120, respiration 30, temperature 102, and severe pain in the lower lobe of the right lung. This latter symptom was imputed to mechanical causes, from the right lateral obliquity of the uterus. So great was the embarrassment of respiration and pain that the idea of artificially inducing labor was seriously entertained. On the 19th labor pains set in at 7 P. M. The dilating stage lasted five hours. At 1 A. M. the head was low in the pelvis, the pulse 160, respiration 60, sweating profuse, countenance indicative of great fatigue. The child's movements and pulse showed it to be well and strong. The forceps were applied and the child delivered in excellent condition. There was no laceration of the perineum, and the uterus contracted well. There was no relief to the function of respiration. The pulse continued its same rapid stroke, the dyspnœa was quite as great as ever, and death closed the scene as if from the accumulation of carbonic acid in the blood. The child was well developed and vigorous, having drained the mother for its own support. I presume there are few supporters at present of the theory that pregnancy retards phthisis by derivation and revulsion. This case seemed one in which the disease was aggravated, if not developed, under the trials of gestation.

Case 2—A UNIQUE PRESENTATION.

Mrs. R. H. was delivered by me in 1884 of a still-born child at full term. The os was dilated by Taylor's narrow blade forceps, and the traction-rod forceps applied above the superior strait. The head not advancing under reasonable force, and the child being dead, cranioclasty was performed. Following her confinement she had severe metritis. In twelve months from her first labor I was called to her in premature delivery of a dead child at eight months.

The presentation was in my experience unique. Both hands and one foot were presenting in the os, above the superior strait, and the funis was prolapsed into the vagina. Inspection and palpation showed the shape of the abdomen as well as the contour of the uterus to be normal. The child was doubled upon its abdominal plane, its dorsal region corresponded with the fundus uteri, the head was on the shelf of the right iliac fossa, the ulnar surfaces of the hands and the os calcis of the presenting foot looked towards the presenting iliac region. Chloroform was given to complete anaesthesia. The missing foot was found, and this and its fellow seized with my right hand only partially introduced into the cavity of the uterus. The left hand assisted in the act of version through the abdominal wall, as in the combined, or Bipolar method, introduced by Braxton Hicks. The membranes had been ruptured for three days, but no serious difficulty was realized in turning the child. In view of the softened and yielding state of the child's tissues, it became most important that traction should have been made with both legs. The atony of the uterine walls fully compensated in turning for the disadvantage from the loss of expulsive power. When the head was extracted the occiput was pushed up, the chin was flexed and simultaneously pressure was made by an assistant. The position as at first diagnosticated could only have occurred in a dead child. I think it was originally a right occipito-iliac position. The child having lost its resiliency, first assumed, under the uterine contractions, an oblique position; and nature, unequal to the task of delivery by the head, began the work of self-turning by the first. The patient made rapid convalescence uninterrupted by a single abnormal symptom.

Case 3—DIAGNOSIS OF TWINS—A DOUBLE BATTLEDOOR PLACENTA.

Mrs. B., primipara, delivered January 5th of twin girls, at the end of the eighth month of pregnancy; was called a month before labor to examine what proved to be a hernia in left inguinal region. An opportunity was given for a thorough exploration of the abdominal tumor. Inspection and measurement showed the transverse diameter of the uterine globe to be as long as the vertical. Auscultation revealed on the extreme right a heart sound, and a loud placental murmur at a corresponding site on the left side. A number of small foetal parts, not clearly distinguishable were found, too

many and some of them too far removed from the fœtus on the right side to be imputed to that child. Twins were predicted. The placental soufflé likely masked the heart-sounds of the child on the left side. The first child was born after a tedious labor of twelve hours, the waters breaking in advance. The second child was born one hour later. The membranes broke when the head was dilating the vulva. The placentas were firmly united and the cords were inserted very near the ridge, where they seemed welded together. They were so close together and so near the line of union as to give the appearance of a double battle-door placenta. Each fœtus had its own amnion and chorion, but there was a common decidua. The close union of the placentas on the left side of the uterus, coupled with the fact that both children were of the same sex, makes it highly probable that the two ova were deposited in the same fold of the decidua vera, that they came from the left ovary and were from the same gräffian vesicle.

Dr. John Morris reported the following case of

LABOR COMPLICATED BY PLACENTA PRÆVIA AND AN INTRAMURAL
FIBROID TUMOR.

On Sunday evening, January 3d, I was hurriedly summoned by Dr. William N. Hill, of this city, to a case of labor. The patient was in charge of Dr. Hill and Dr. I. I. Gross. Dr. Hill furnishes the following history of the case: "Dr. Gross first saw the woman last March, which corresponds with the date of her first month of pregnancy. He discovered a tumor in the left side, which caused the patient to complain of pain, especially while standing. After rest for a couple of weeks, warm applications, the administration of narcotics and iodide potassium, she became convalescent and progressed favorably during the remainder of her pregnancy. On Saturday, January 2d, at 9 P. M., she was delivered by a midwife of a living child. Dr. Gross was called in at midnight and found the woman flooding from inherent placenta. He tamponed, gave ergot, and the hæmorrhage ceased. Owing to the contraction of the os and the partial projecting of the placenta, a full examination of the interior of the womb was an impossibility, although the size and appearance of the abdomen were such as to lead Dr. Gross to the belief that there was a second child present.

"At 7 A. M. Sunday the os was closed firmly on the projecting

placenta ; no hæmorrhage, ergot continued. I was called to assist Dr. Gross at 4 P. M. on Sunday, and found the os dilated sufficiently to admit the hand partially. Portions of placenta, not adherent, taken away. Appearance of womb as to size and irregularity remained unchanged, although examination by touch revealed no presenting part or membranes. Pains slight and at long intervals. The progress of the case afterwards you yourself observed."

I saw the woman on Sunday evening at 6 o'clock, twenty-one hours after the delivery of the child. She was a respectable, intelligent colored woman, over 40 years of age. She was quite feeble and greatly exhausted from pain, loss of sleep and anxiety of mind, as well as the previous hæmorrhage. She was, however, very patient and hopeful. Fortunately the hæmorrhage had ceased. I first examined the child, as I was very doubtful, from the history given me, of the presence of a second one in the uterus. The baby was a healthy, wholesome little thing, and weighed about seven pounds. It was slightly larger than twin children usually are. I next made an examination of the abdomen. I found a tumor or hard mass nearly the size of a small child. It was solid and unyielding to the touch. It was not symmetrical in shape, and lay chiefly on the left side of the abdomen. This tumor presented no angles or projecting points such as you would be likely to find in the case of a twin child. I then proceeded to make an examination per vaginam and discovered the os partially closed and the placenta adherent on the left side of the cervix and anterior portion of the womb. I found great difficulty in passing the hand, and consequently determined to administer an anæsthetic. She came readily under the influence of the chloroform ; I introduced my hand, broke up the attachments of the placenta and removed it *en masse*. I then made an exploration of the uterus and found, as I anticipated, a large tumor. It was an intra-mural fibroid, and filled up the posterior and left lateral wall of the uterus. It terminated in a small pedicle or tumor the size of a walnut, which, covered by the mucous membrane, projected into the uterus. The continued use of ergot had produced violent contractions and pressed the tumor tensely upon the placenta, thus deceiving the gentlemen in attendance as to the true character of the mass felt by abdominal examination.

This case presents some very singular features. The fact that a

woman over forty years of age, suffering from a fibroid tumor, filling up the greater portion of the uterus is in itself, I think, an unusual circumstance. The attachment of the placenta to the cervix thus occasioning a partial placenta prævia was no doubt due to the law of selection, inasmuch as the fundus did not afford a proper nutrient matrix for the support of the child. I would here remark (*en passant*) that the woman had not been pregnant for twelve years. Her pregnancy in this instance was no doubt due to the accident of the ovum, which came possibly from the left ovary, finding a nidus in the healthy cervix. The case taken altogether is a profitable one, and may possibly prove of service to all engaged in it. I had not met a similar one in an experience of forty years.

Dr. B. B. Browne remarked that about ten years ago he had a somewhat similar experience, the patient also being a colored woman. He was called to a case, which had been attended by a midwife, about twelve hours after the delivery of one child, to deliver the other, which the midwife said was fast and would not come away. Upon examination a sub-peritoneal tumor as large as a foetal head at full term was found. The tumor had attained this large size during the period of pregnancy. With involution of the uterus the tumor decreased rapidly in size, and at the end of six weeks could scarcely be detected. This case was reported in the *American Journal of Obstetrics*, Vol. X p. 39.

Dr. Morris asked Dr. Miltenberger's opinion as to the theory advanced in the paper that the ovum had by a law of selection attached itself to the cervix, not finding a proper nutrient *nidus* in the body of the uterus.

Dr. Miltenberger thought the theory a very plausible one.

Dr. T. A. Ashby asked Dr. Morris whether menstruation had occurred during pregnancy in the case which he has related. Several cases had been reported in journal literature when menstruation had continued during pregnancy, and the explanation offered was based upon the discovery of polypi and sub-mucous fibroids in the uterus. In the classical case reported some years by Dr. L. M. York menstruation was observed in a pregnant woman, and upon examination a very small polypus was found and removed, and hæmorrhage did not again occur during the pregnancy. Dr. Ashby was of the opinion that the explanation offered by Dr. Morris to account for the position of the placenta was a most rational one.

The presence of the tumor had no doubt prevented the ovum from becoming engrafted upon the mucous membrane covering it, and as the tissues about the cervix were in a healthy condition a favorable site was offered for the development of the decidua and the growth of the ovum.

The doctor then related the following history of a case which he had attended about a year ago. He was first called to see the patient during labor and learned that she was over five months advanced in pregnancy. For two weeks she had been losing large quantities of blood, but this circumstance had not attracted serious attention until severe labor pains set in. Upon examination he found the placenta firmly attached to the right side of the cervix, but a large portion which lapped over the internal os had become detached. Hæmorrhage had resulted from this detachment and the copious loss of blood had destroyed the life of the fœtus, which had evidently been dead for several days. The breech presented, and, after some delay in dilating the cervix, delivery took place. The placenta being firmly adherent, was detached with some difficulty. The patient made an uninterrupted recovery. Dr. A. considered that the occurrence of the abortion had proven a conservative process, as the full development of the child would doubtless have led to more serious complications. In this case there was no evidence of a fibroid tumor, but impregnation had followed pretty closely upon the birth of a child, which may have accounted for the occurrence of a placenta prævia.

Dr. Miltenberger said he thought that the presence of an intra-mural fibroid would not, as a rule, cause hæmorrhage during pregnancy, although polypi are very apt to do so.

Dr. Browne asked Dr. Miltenberger if it was not his experience that fibroid tumors increased very rapidly during pregnancy.

Dr. Miltenberger replied that, at the moment, he remembered three cases of pregnancy complicated by fibroid tumors. In two of these there was marked increase in the size of the growth during gestation and rapid disappearance after confinement. Both occurred in young women.

Dr. W. P. Chunn thought that hæmorrhage might be caused by the unequal contraction of different portions of the uterus, due to the presence of the tumor, which might also, to some extent, have prevented the expulsion of the placenta. Dr. Emmet had related a

case in which alarming hæmorrhage followed the extraction of a sub-mucous fibroid, and was only checked after a second tumor, which was found in the parenchyma, was removed.

Dr. Robert T. Wilson referred to a patient of his who told him that the only time she menstruated or had any bloody discharge from her uterus was during pregnancy, but that during that period the flow appeared regularly each month, ceasing after labor had taken place. His patient was a white woman and had no fibroid tumor.

Dr. Morris believed that hæmorrhages during pregnancy did not result from intra-mural fibroids. As regards the prognosis in these cases, he felt safe in telling the friends that the tumor would disappear.

Dr. Browne remarked that the existence of fibroid tumors in the uterus was a recognized cause of sterility, but when pregnancy does occur in such cases the tumors increase rapidly in size with the development of the uterus. After delivery, with involution of the uterus, the growths quickly diminish in size and frequently disappear altogether.

Dr. Neale referred to two cases the history of which he had read before the Maryland Medical and Chirurgical Faculty :

Case 1 —Mrs. A. P., age 28, was delivered of her fourth child after a perfectly normal and easy labor. A teaspoonful of fluid extract of ergot was given post-partum, but a considerable bloody discharge with severe after-pains continued for twelve hours, when the patient expelled from her uterus a fibroid tumor, which the doctor preserved. Its presence had not been suspected.

Case 2.—Mrs. M., American, age 20, was delivered with forceps after a difficult and tedious labor. The uterus, after expulsion of the placenta, although firmly contracted, would not descend below the umbilicus. Both Dr. Miltenberger and Dr. Neale made careful vaginal examinations and diagnosed a fibroid tumor, apparently about the size of a man's fist, in the posterior uterine wall. Nothing of special note occurred until the eighth day, when the patient passed from her uterus a fleshy mass described by the nurse as being "like a miscarriage and resembling in consistence the gizzard of a chicken." It was thrown away by the nurse, but both physicians considered the case analogous to case one.

Dr. Neale considered these cases especially interesting as occurring in young white women, and thought the fact of spontaneous post-

partum expulsion might have some bearing upon the treatment and prognosis.

Dr. Morris referred to a patient of his who, about eight days after each of her confinements had passed a fleshy tumor from her uterus. Dr. Miltenberger had kindly attended this patient, in one of her labors, for Dr. Morris, and had an opportunity to examine one of these tumors. Dr. Morris has seen notices or similar cases in foreign text-books, but has never seen them in our own.



HÆMOPHILIA.

By R. L. PAYNE, jr., M.D., Lexington, N. C.



Hæmophilia, hæmatophilia, or the bleeding diathesis, is one of the rarest of the many hereditary tendencies of the *genus homo*—so rare, indeed, that it happily falls to the lot of very few physicians to encounter such patients, and even though the diathesis has been distinctly recognized for very many years, nothing is known of its pathological significance.

Such being the case, it may not be uninteresting to the profession to read a brief report of the diathetic history of one of these habitual bleeders, and since there has, as yet, been discovered, in these subjects, no gross or microscopic peculiarities of structure, either congenital or acquired, we can only hope to know more of this dangerous habit through such facts as may be deduced from an aggregation of such cases.

Jefferson T., age 18, complexion fair and ruddy, eyes brown, hair red, is stout, well built and very muscular. He has been very healthy since babyhood, and has had no attention from a physician since this tender age except on numerous occasions my father, Dr. Payne, sr., has been called in to arrest hæmorrhage, which always occurred from slight injuries, and never was troublesome immediately after the injury, but came on in ten days or two weeks thereafter. On one occasion he came near bleeding to death from the stumping of his toe. This gave very little trouble immediately, but ten days subsequently

blood began to ooze out from around the nail, and he was well-nigh exsanguinated before, with styptics and compresses, the bleeding could be restrained. At another time, while playing with a chicken-rooster, he was accidentally struck on the head by the spur of his pet and a small punctured wound inflicted in the scalp, which a fortnight later bled profusely, and was restrained with much trouble by his physician.

He never had one of the permanent teeth extracted, but when the milk teeth were removed troublesome secondary hæmorrhage occurred. All his life the slightest blow on the nose has produced troublesome epistaxis, and he frequently suffered idiopathic hæmorrhage from this organ. His family history is very good. His father, a blacksmith, is one of the most muscular, lithe and active men of my acquaintance, and his mother is a robust woman, who has known little sickness beyond those troubles incident to child-bearing and some of the numerous slight ailments of the menopause. One point only in the family history of the mother is worthy of notice, and that is one of her brothers was a bleeder and suffered much like the patient whose history we are now detailing. Of the father and mother—in fact, of the rest of her family—she can give no history, all of them having died while she was quite young.

The subject of this sketch first came under my care as a patient for hæmorrhage February 3d, 1879. Some weeks previous to this time I had been called to treat him for severe bruises on the head. A vicious horse which he was driving became frightened and ran away with the wagon, from which the boy was thrown, and his feet becoming entangled in the wagon-bed, he was dragged a considerable distance over stony ground. At this time his head was swollen to nearly twice its normal size from effusions of blood and serum, but this swelling rapidly subsided under the application of ammonium chloride and evaporating lotions. Since this time he has been kicked by a gun and now has a knot on his head as large as a hen's egg. I found the patient bleeding freely from the nose, the blood running in a small stream, and he stated that he had been so bleeding for about five hours without intermission. He was very much weakened, and I thought best at once to plug the anterior and posterior nares. These tampons and the free administration of fluid extract of ergot readily controlled the hæmorrhage.

February 5—On this day, there having been no return of the bleeding, my father removed the plugs from the nose, ordered absolute

quiet and also continued the exhibition of the ergot. Both these injunctions were disregarded, and on the sixth day the patient hunted rabbits in the snow on foot for several hours.

February 7, 8 A. M.—I was again called to the patient, who had bled from the nose since midnight. The anterior and posterior nares were again plugged. 30 gtt. fluid extract of ergot ordered every hour and cold applied to head. Rest and a milk diet enjoined. At 10 o'clock, the hæmorrhage continuing unabated, the plugs were removed and plugs of cotton wool as large as could be pulled into the posterior nares by a stout thread were introduced and the nostrils were forcibly packed with the same material. These soon became saturated, and the blood oozed through guttatim till 4 P. M. at which time my father removed the tampons and reintroduced them of fresh material saturated with Monsel's solution. At the same time 10 grs. gallic acid was ordered every second hour and the ergot continued.

8 P. M.—My father and I visited patient together, and finding him no better, the cotton plugs were removed and large plugs of sponge saturated with the iron styptic were introduced. The ergot and gallic acid were continued, and in addition ergotine was administered hypodermically and subsequently a dose of morphine to promote quietude.

February 8.—Hæmorrhage is going on continuously, and there is very feeble pulse, pallid countenance, cold surface and frequent vomiting. The treatment agreed on to-day is to consist of ergot hypodermically every fourth hour, 15 grs. gallic acid every second hour and tincture cannabis indica gtt. 20 every sixth hour. Bladders of pounded ice to head and nose.

8 P. M.—No change except less vomiting. Ergot discontinued and 20 gtt. tincture ferri-chloride ordered instead, to be alternated every second hour with the gallic acid.

February 9, 10 A. M.—Bleeding ceased. Treatment continued.

February 10—No return of hæmorrhage. Discontinued the indian hemp and directed the iron and gallic acid as before. The plugs are very foul and the parts swollen and painful. Antisepsis was promoted as thoroughly as possible under the circumstances by carbolated washes.

February 12—The patient has gradually improved and the plugs were removed to-day without bad sequence, a purgative was administered for existing constipation, absolute rest was enjoined and the use of the tincture of iron recommended for a number of days.

From this time on to October, 1883, my patient enjoyed very good health with the exception of frequent bleedings from the nose, which bleeding, however, was controlled without a physician. He was very irregular in his habits, endured much exposure, and upon occasion used alcohol in excess. In this month (about the 12th) I was called to see him and found him complaining of slight nausea, the tongue was coated with a heavy yellow fur, and there was a dull, heavy feeling extending across the right hypochondrium and epigastric region. The liver was somewhat congested, the line of percussion dullness extending below the ribs. At this time I received the following history: A week or more previous, while riding rapidly, he was thrown from the horse, striking the pit of his stomach across a rail fence. For a time the breath appeared knocked out of him, and when he regained consciousness he spat up or vomited a little blood. For two or three days thereafter he was very sore in his stomach, and my father learning the facts warned him to be quiet or secondary hæmorrhage would occur, but when I saw him the soreness had so far subsided as to allow him to plow and do general farm work, and regarding his present symptoms as due to portal congestion, I simply ordered a dose of calomel, to be followed by a brisk cathartic, and repeated my father's warning. My diagnosis was justified by the complete relief of symptoms which followed the catharsis, and on the next day he resumed his plowing and preparation for wheat-sowing, and I heard nothing more of the case till the 19th of October.

On the morning of this day he arose early and complained of feeling very cold and badly, but going about his work, he cut up a beef and sold it at retail, and then, feeling the desire to defecate, he passed a considerable amount of blood. In the course of an hour this appearance of hæmorrhage recurred, and becoming alarmed, in spite of growing weakness, he drove to our office in his buggy. Not finding either of us in, he started for home, fainted in the street, and a brother physician who was called in applied restoratives, ordered an astringent prescription, and got him home. Late in the evening of the same day my father visited him and found him suffering frequently recurring hæmorrhage from the bowels. He ordered a pill of acetate of lead and opium to be alternated with gallic acid, and having covered the abdomen with bladders filled with pounded ice, he administered a hypodermic injection of Squibbs' fluid extract of ergot.

I visited him at bed-time, and finding no change in the symptoms, repeated the ergot injection and continued the treatment. The thirst was very great, and he was allowed ice-water and a small lump of ice. No food except iced milk. At 2 A. M. I was again called to his bed-side and found the bleeding from the bowels still going on at intervals, and in addition frequent and profuse hæmatemesis. The surface of the body was cold, the pulse hurried and thready, the thirst extreme. There was sighing respiration and the patient frequently complained of a feeling of impending death. No change of treatment, it was thought, could accomplish any good, but two syringefuls of ergot, together with $\frac{1}{4}$ grain sulphate of morphia, were injected into the abdominal wall. After this he slept quietly and undisturbed for some hours, but on awaking the symptoms again recurred and bleeding continued from stomach and bowels till the morning of October 21st, when, about forty hours after the onset of the hæmorrhage, he became unconscious and died without a struggle. All the astringents were tried in vain. Ergot was used hypodermically, and during the last day digitalis was also prescribed, both because of the hope that by virtue of its vaso-motor stimulation the opening in the bleeding vessel might be closed, and to stay the failing heart, but all to no avail, he died the victim of the diathesis which was his birth-right. No autopsy could be obtained. A point worthy of note in this man's diathetic history must not be omitted from this little sketch, and that was the rapidity with which he regained health and strength and his habitual ruddy color after the terrible losses of blood which he sustained at various times. I have often thought his hæmapoietic functions were equalled alone by his ability as a bleeder. This patient had three brothers and one sister. The sister, now about thirteen years of age, and the younger brother are both strong healthy children, with florid complexions, and neither have as yet exhibited any tendency to undue bleeding, but the two older brothers, aged fifteen and seventeen years, respectively, are pale and anæmic, with flabby muscles, and both show unmistakable evidence of the hæmorrhagic diathesis. The elder of these has epileptic convulsions dating from puberty and recurring about once or twice a month. There is, however, a history of two injuries to the head, each followed by slight concussion. This boy on several occasions

has bled badly. Once he cut his finger slightly and had no trouble himself to restrain the hæmorrhage, but some days later we were somewhat bothered to control an onset of bleeding with styptics and compress. On several occasions we have extracted teeth for him, which little operation gave no immediate trouble, but the invariable result was troublesome bleeding a week or ten days thereafter, requiring the plugging of the root cavity. The other brother is a weak, nervous boy, easily excited and showing decided neurasthenic tendencies. He has troublesome secondary hæmorrhages from the slightest wounds, and always requires styptics and plugging of the cavity after the extraction of a tooth. These cases illustrate—

1st. That there are persons who, from some inherent peculiarity of constitution, are especially liable to troublesome and dangerous hæmorrhages.

2d. That there are cases of hæmophilia in which the diathesis is more manifest in the tendency to secondary than primary hæmorrhage. (This is a phase of the diathesis which I believe no medical observer has as yet noticed, but Felt, in his "History of Ipswich," describes a family of bleeders in which only males were affected, and who only suffered from troublesome hæmorrhage a number of days after the reception of an injury.)

3d. That, as most observers have agreed, males are more liable to inherit the diathesis than females.

4th. These cases are confirmatory of that law of heredity which, though not as yet it can be regarded as fixed, still can claim as its foundation a strong body of facts, viz: a constitutional tendency inherited from maternal ancestors is more apt to appear in male than in female descendants.

As to the pathology of this condition—as before intimated—we can say but little, and even though we say but little, we are forced to leave the broad domain of Fact and enter that hazy border-land of truth called Theory. In speaking of the pathology of hæmophilia Flint tells us: "There is a deficiency of fibrin or a want of coagulability of the blood." In this opinion he is sustained by Tanner, Wood and others eminent in the profession, but Rokitsky believed the trouble to be due to "a delicate construction and vulnerability of the vessels and a watery condition of the blood." In this idea Gross concurs, and further opines that, while there is no

evidence going to show a primary deficiency of fibrin, there probably exists a want of coagulating power in the fibrin present in the blood. Langé, who has analyzed 140 cases, and has given more attention to the study of this condition than any other observer within my knowledge, has arrived at no more definite opinion than that in these subjects the probable condition is thin blood and deficient coagulability. These authorities all very nearly agree, but as yet these opinions, coming, though they do, from the most eminent sources, cannot be received as final. In many of these cases the hæmorrhage is secondary, and in the cases I have recorded little trouble was experienced in controlling the flow of blood immediately upon the reception of an injury. Certainly no one would suspect any lack of fibrin existed in the blood of my patients from the readiness with which clot formed directly after the receipt of an injury, but the trouble, always occurring a week or more thereafter, has sometimes lead me to think some subtle change was brought about in the blood by the state of inflammation.

Again, the idea has occurred to me that in these subjects there exists some inherent want of nerve-power, which lessens the coagulating power of the blood, or what to my mind seems not at all improbable in these patients, there exists so great a degree of nervous impressibility that even the shock of a slight injury is sufficient to affect through the nervous system the coagulating power of the blood. In some this exalted sensibility of the nerves is so great as to do its work of change very rapidly, and in these the diathesis manifests itself by immediate hæmorrhage, prolonged and difficult of management, but in others the change indicated by the injury takes place more slowly and the disordered innervation also interferes with the organization of the clot which has already formed in the injured vessel, and so the bleeding, which was at first easily controlled again, breaks forth, and is with much difficulty restrained.

This theory of the pathology of hæmophilia finds much support in the fact that in cases of death from lightning and after sudden death from other causes in which the nerve-power is suddenly lost, as Gross has shown, as well as after the section of the pneumogastric nerves, the blood loses all power to coagulate. Certainly, then, the nerves must exercise some influence on the coagulating power

of the blood, and this theory seems more reasonable, therefore, than that which declares a deficiency of fibrin exists in the circulating fluid, because such a state of affairs would be easy of demonstration by chemical analysis did it exist, but as yet there is only one case on record in which, after careful analysis, a deficiency of fibrin has been declared to exist, and there is no reason why in this isolated instance the lack of fibrin may not have been due to other causes.

At best, however, we can only theorize and wait to test the soundness of our theories by deductions drawn from a larger aggregation of cause.

SELECTED PAPERS.

ABSTRACT FROM MR. HUTCHINSON'S LETTSOMIAN LECTURES.

The Mutual Relationships of the Different Forms of Primary Venereal Sore—The Causes of Phagedæna in Primary Sores—Hospital-gangrene—On Recurring Chancres—On Different Forms of Bubo, and on Questions in Reference to Primary Syphilis—Syphilis after Vaccination with Clear Lymph.

Mutual Relations of the Different Forms of Primary Venereal Sores.—I have long thought that, if the question in debate could be once clearly stated, the duality or unicity of venereal poisons would soon cease to be a mooted point. We are pretty much agreed as to the facts, and the controversy is mainly as to what they imply. A dualist is, I suppose, one who holds that there exist two quite distinct and independent contagia, one of which produces a non-infecting sore, and the other syphilis. An unicist holds, somewhat differently, that the poison of the soft sore is a product of syphilis, and by no means independent. The difference, after all, is not great, nor clinically is it of much importance. No one thinks that there are two forms of syphilis, and no one doubts that there are two kinds of sores. Are they related and independent? that is all that we dispute about.

The fact which chiefly favors the creed of those who think that they

are independent is, that the secretion of the chancroid is very contagious, and always produces a sore like itself. Bassereau, in the first instance, proved this by confronting his patients who had got chancroids with the persons who had infected them, and he found that the giver usually possessed a sore just like that which had been given. Since Bassereau's time numberless experiments, especially those done in the course of what was called syphilisation, have abundantly proved his point. What was named syphilisation consisted in inoculating the secretion of a chancroid on the skin; the result was that a chancroid formed. It must be remembered, however, that it was done almost exclusively on those who had syphilis.

Here was clearly a fallacy, for the patient might, in consequence of his prior syphilis, be insusceptible of fresh contagion. Danielsen, however, in Bergen, tried the practice on a number of lepers who had never had syphilis, and with similar results. He found that he could reproduce a soft sore over and over again, and that it was never followed by syphilis. In further proof that no syphilis was conveyed, it may be stated that one patient, who had undergone many inoculations without ill result, finally by accident received virus from a true chancre, and had, as a consequence, an attack of true syphilis. It might seem that the proof of specific distinctness was here given. It is necessary, however, at this stage to insist that there is an important difference between a specific contagium and a specialised contagium. By specific we denote that which is always, and under all conditions, the same, and producible only by its own seed, distinct in the same sense that wheat and clover are distinct. There may easily be many morbid poisons which are specialised, that is, which may, during a certain number of generations, produce conditions similar to those in which they had their origin, and which yet do not rise to the dignity of species.

All inflammatory products are probably, under favorable conditions, contagious. The gonorrhœal secretion produces gonorrhœa, that of erysipelas erysipelas, that of diphtheria diphtheria, and so on. It is probable, however, that each of the diseases may originate spontaneously and quite independently of contagion. The contagia are, therefore, the products of inflammation. Further, it is highly probable that, in each of the diseases mentioned, the contagium may vary much in virulence, and that it is by no means always the same. Probably it is quite possible to breed them up to higher degrees of

power and of special peculiarities. It is possible, then, that the poison which produces the chancroid is, after all, only a specialised product of inflammation, and not a specific virus.

Many facts seem to support the conclusion just hinted at, and to imply that soft sores are, after all, an appanage of syphilis. When care is taken in inoculation, unquestionably they seem to breed true; but this is not the case in those which we see in practice as the results of accidental contagion. If we place in one group as "soft" all the venereal sores which do not harden, and which do not infect the system, we shall find that but a very small proportion of them present what are considered the typical characters of the chancroid. We encounter a great variety of conditions and great differences in course, and are obliged to conclude that they agree in one feature only—the absence of hardness. The rounded form, punched out and ragged edges and grey base, are conditions not present in my experience in one of five of the venereal sores which do not harden.

It would be waste of time to attempt to describe the multiform character of non-indurated sores. Many of them are small, almost level with the surface, and have shelving edges. How rarely do we witness the inflammatory bubo tending to abscess which is said to accompany them. How short, as a rule, is their duration. Whilst the typical chancroid goes through stages, and usually lasts six weeks, a few dressings with iodoform suffice to cure in a week almost all the "soft sores" that we meet with in practice. Now and then, I admit, we encounter the true chancroid as graphically depicted by Mr. Lee, but it is very exceptional. This want of uniformity in conditions is a strong argument against specificity. Another equally strong argument is that the true chancroid on the genitals is seldom seen, excepting in those who have had syphilis already. If a person who has never suffered before contracts a venereal sore of any kind, it is highly probable that it will lead to syphilis. This fact, which I think many observers will confirm, is placed in a strong light by Mr. Morgan, of the Dublin Lock Hospital, who states that, of fifty-four patients who came under care for first attacks of venereal sores, fifty proved to have true syphilis. Thus it would seem that insusceptibility is an usual cause of non-occurrence of induration. In using this argument I by no means wish to deny that the typical chancroid is sometimes seen in those who have never had syphilis.

Very important evidence as to the origin of the chancroid, and of all non-indurated venereal sores, from syphilitic secretions, is afforded by at least two experimenters. Mr. Morgan of Dublin, whose paper I have just quoted, inoculated with purulent vaginal fluid from those who had had syphilis, and found that he could with it produce the typical chancroid. From the sores thus produced he could inoculate repeatedly and with sameness of results. With praiseworthy caution he never inoculated excepting in those who had previously had syphilis; and thus, whilst his facts were conclusive as to the production of soft sores, they do not prove that syphilis might not very possibly have been produced at the same time had the soil been suitable. Mr. Lee had previously recorded the possibility of producing from indurated sores, by artificial irritation, a secretion which is purulent, and which is inoculable on the patient, producing a sore not distinguishable from chancroid. Mr. Gascoyen, Bidentkap, and others had, I believe, done the same. It is surely very difficult to get over these facts; whilst, to push the argument further, so far as I can see, all *a priori* probability favors the suggestion that non-indurated sores are produced by the secretion of true chancres, which have been changed in character, either by the inflammatory process, or by the non-susceptibility of the tissues of the recipient.

Phagedæna.—A parallel of much importance might, perhaps, be drawn between the chancroid process and phagedæna. Phagedæna, as we see it in connection with syphilis, is almost invariably of spontaneous origin, or, in other words, caused by syphilitic inflammation, and not by phagedænic contagion. Its existence puts an end to all possible sexual exposure, otherwise we should probably often see it on the genitals as the result of contagion. There is every reason to believe that its products are contagious, and that they would probably produce phagedæna, and not syphilis. The specific virus of the latter is probably destroyed in the gangrenous process. When phagedæna spreads as such by contagion we encounter it, as I shall have to assert directly, under other aspects, and not as a venereal disease. Now, the chancroid type of inflammation is possibly only a sort of minimised phagedæna, and differs from it only in degree. Its virus is probably produced under similar conditions, and it is curable under the same methods of treatment. The fact that a chancroid in a woman does not

absolutely disqualify for sexual congress, makes it possible for it to be transferred as such by direct contagion. This fact it was which misled Bassareau and his followers into the belief that the virus of these sores possessed specific individuality. Probably it is not so; and it is still likely that many chancroids originate spontaneously in the same sense that phagedæna does; that is, they result not from syphilitic contagion from a sore of the same kind, but from a modification of a syphilitic inflammation by peculiarities of the individual. Be this as it may, it is to be freely admitted that chancroids are very contagious, and that they reproduce themselves with closely similar features. Their virus, if not specific, is at any rate well specialised.

Hospital-Phagedæna.—Closely connected with this topic, and of great clinical interest, we have the question of the origin of hospital-phagedæna from syphilis. It is not uncommon to see the disappearance of hospital-gangrene claimed as one of the triumphs of antiseptic practice. I hold this to be a mistake, and I have the less reluctance in saying so, because I feel sure that no one estimates the legitimate victories of antisepticism more highly than myself. Its great teacher and his school need no borrowed plumes. The truth respecting hospital-phagedæna is, that it did not exist in one in ten of our hospitals at the time when antiseptics came into vogue. It is not a disease which is always with us, but rather one which comes occasionally, prevails extensively, and then disappears. It is not due to neglect of cleanliness, nor to atmospheric infection; it does not occur from overcrowding; but it is caused by a special form of contagious pus. All the facts as to its history support this creed. During our last epidemic of it at the London Hospital one large ward alone of the whole surgical department remained exempt. It was not less crowded than the others, and it received precisely the same class of cases; but it, unlike the others, never got patients from the infected wards. Hence its escape from contagion. That epidemic ended in 1864, and from that time onward there have been no cases whatever in the hospital. The origin of that epidemic was, I had good reason for believing, the admission of a case of syphilitic phagedæna into a surgical ward. The first case occurred in the next bed to this patient. Mr. Pollock told me that he had arrived at the same conclusion as to an epidemic of the disease in St. George's Hospital. I have mentioned these facts before on

more than one occasion ; but the following is a new one, and it gives them strong support. A few years ago a boy was brought into the London Hospital in consequence of his having been attacked by phagedæna in a workhouse-infirmiry. He was suffering from acute periostitis of the tibia. A free incision had been made, and this wound it was which had become gangrenous. Its edges were swollen, ragged and discolored, its surface covered with pultaceous secretion. It presented, in fact, a good example of what I had often seen during the epidemic referred to, and never since. I had commented at the bedside of the boy on the case, and I had mentioned my belief that hospital-gangrene usually began from syphilitic cases. We could find no suspicion of syphilis in the boy. A house-surgeon present afterwards gave me what was probably the correct information. There had been admitted under one of my colleagues a very bad case of syphilitic phagedæna from the same workhouse, only a little before the lad. On inquiry I found that in the workhouse the man's prepuce had been slit up with the same instruments which, some time later, had been used for the boy's leg ; it was possible even that the same sponges had been used. Here, then, to say the least, was a possible source of contagion. The suggestion that hospital phagedæna takes its origin from syphilitic phagedæna, would fit well with the fact that it often prevails in military hospitals, especially when crowded, in time of war. These are just the places where we may expect to encounter occasionally neglected and unhealthy venereal sores.

If we admit that what I have stated is very probable, it becomes of interest to glance at the facts of the malady in question. Hospital phagedæna is very contagious, and it spreads by contagion only. The previous health of the patient matters nothing ; nor the salubrity or otherwise of the ward. Excepting in varying degrees of severity all its cases are alike ; they tend to the same results, and are to be cured by the same means. It is a well specialised disease. It never leads to constitutional syphilis. Accepting the hypothesis of its syphilitic origin, we have then a parallel fact to what is observed in the case of the chancroid. A specialised contagium (pus) has been bred up, which can produce its like wherever inoculated, but which does not contain the virus of syphilis. Both the chancroid and the phagedæna are the products of a poison originating in a syphilitic inflammation, but which in neither case

can induce syphilis. It is easy enough to see that, if once the particulate virus of syphilis have died out of a secretion, the latter may then be propagated over and over again without the slightest possibility of reproducing the defunct specific elements. It is not, therefore, to be wondered at that neither the chancroid nor hospital-phagedæna, although appanages of syphilis, ever, when once negatively specialised, by any chance produces that disease.

It is a question about which there is still some debate, whether the infecting or the non-infecting sore is the more liable to phagedæna. My own experience would lead me to a very definite opinion, that almost all sores which are attacked by this process are true chancres, and that it occurs at a stage too late to prevent absorption. It is, in fact, a concomitant of a true syphilitic inflammation, and does not usually happen until induration has taken place. It denotes unusual susceptibility to the influence of the virus, and it is often followed by very severe secondary symptoms. I will not deny that the retention of irritating secretions, as in phimosis with concealed sores, may give rise to gangrene of the foreskin in cases where no syphilis exists. If, however, a typical phagedænic process be set up, and spread, I believe that it will almost invariably be in association with true syphilis. I have suggested that the chancroid process is quite capable, under most circumstances, of maintaining its individuality. When once its peculiarities have been declared, the sore seldom deviates much from its type. If it do become aggravated, and spread at its edges, such spreading is only of the very mildest form of what we mean by phagedæna.

A knowledge of the fact that phagedæna usually goes with true syphilis is of much importance for purposes of retrospective diagnosis to those engaged in medical practice. Not unfrequently, with symptoms of visceral or nerve-disease, an examination of the genitals is made in order to seek for scars. Whilst some have assumed that scars on the penis, or its extensive malformation by bygone phagedæna, imply the probability of syphilis, others have asserted that they rather favor the belief that the disease was not true syphilis. My vote would go with those who regard them as important, though not conclusive, evidence of constitutional disease. I have very seldom seen scars on the penis in patients who had not had syphilis, and still more seldom the evidences of phagedænic action.

I am compelled also, as the result of personal observation, to deviate yet further from the popular creed, and to say that I regard scars in the groin as also presumptive evidence of syphilis. Our rules of diagnosis have been, I cannot but think, far too definitely laid down on these matters. In private practice it is very rarely, indeed, that we have to deal with inflamed bubos. It so happens that, of late years, almost all the cases of suppurated bubo which I have seen were cases of syphilis. It is not, I believe, on the other hand, very exceptional for the typical chancroid to cause no enlargement of the glands at all. I really fear that I may be suspected of differing for the sake of it, but I am compelled to record the result of unprejudiced observation. That an uninflamed indurated sore will be attended by uninflamed indurated glands I fully admit ; but the fact remains that a great many infecting sores do inflame and suppurate, and when that is the case the glands will follow suit. Nor is this inflammation always the result of a mixed contagion ; it often, I feel sure, results from personal proclivity in connection with a fairly pure syphilitic virus.

A series of cases of syphilis from circumcision, which I have recently, in association with my friend, Mr. Charles Macnamara, had an opportunity of investigating, is of much interest in reference to the question just discussed. We were shown a group of six infants, all of whom had constitutional syphilis, having been infected by the same operator in the rite of circumcision. In all the operations the wound had reopened and assumed the condition of a chancre. Two out of the six had double suppurated buboes in the groin, and two others had large masses of agglutinated glands. The children had all been healthy before the operation ; and I cannot but think that their age had probably much to do with the unusual tendency to suppurative inflammation displayed. So also in the case of adults, is it not probable that age and personal peculiarities often exercise great influence on the tendency to inflammatory action. In the children just referred to it is to be admitted that the sores had much inflamed also, and thus it may be fairly suggested that the contagion was probably mixed. I am not, at the present moment, inclined to dispute that point, my reason for adducing the cases being simply the practical one of showing that suppurated bubo and constitutional syphilis often go together, and that, as a consequence, we are on unsafe ground in believing that scars in the groin imply absence of constitutional infection.

The recognition of non-infecting venereal sores on other parts than the genitals, whether on the hands or elsewhere, is a matter of great difficulty. It is, indeed, so difficult, that the recognition is seldom or never attempted. There are, in fact, no characters by which, apart from the history, such a diagnosis can be made even probable. We know that unhealthy ulcers may result from a variety of causes, and that they may easily cause gland-enlargements. It is not likely that our non-professional patients will ever volunteer, respecting any sore, on the hand, or elsewhere, that it may possibly have been caused by venereal contamination. In the case of the hands of midwives and medical men, however, the case is different. In them there is nothing disgraceful in the admission of exposure; and we ought, perhaps, looking at the facts as generally believed, to expect to see non-infecting sores as frequently as infecting ones. I suspect, however, that they are very rare. I have myself very seldom indeed seen sores on the fingers of surgeons which could be reasonably supposed to be due to vaginal infection, which did not prove to be true chancres. I do not recollect a single instance in which a sore on the hand, which was not a true chancre, produced a bubo in the armpit. Although I have treated possibly a hundred cases of chancre on the finger, I never yet was concerned with a suppurated bubo in the armpit in association with a venereal sore on the hand. This is a very remarkable fact, and may be held to indicate either that the so-called "soft sore" is rare on the fingers, or that it but rarely causes bubo. Probably both explanations are in turn true.

The following narrative bears in an important manner upon the above general statements. A surgeon in good health pricked his fingers severely in several places during an operation for removal of the cervix uteri. He knew at the time that he was pricking himself on the teeth of the vulsellum, but his patient was bleeding profusely, and he was obliged to persevere. One finger inflamed under the nail within a day or two, and, during the next week, five or six sores had formed on different parts of several fingers of his right hand. Various remedies, black wash, iodoform, etc., were used, but the sores became larger, and, at the date or a month after the accident, he came to me. The conditions were then very suspicious indeed. Although there was no definite induration, most of the sores had elevated swollen edges, and looked, so far as my experience went, just as if about to

indurate. They were inflamed, rather deep, and very painful. One of them, under the nail at a finger-end, did not present an actual ulcer, and, in this respect, differed from others, all of which were exactly alike. They were big enough to have allowed the pulp of the little finger to be put into them. Their edges were not in the least ragged; all were suppurating, but not freely. There was no bubo. I advised the free use of iodoform to some, and of black wash to others. We agreed to abstain from mercury, and wait events. The sores dressed with iodoform became healthy much more quickly than the others, and we soon laid aside the black wash and used the former to them all. Dr. P. took his temperatures regularly, and carefully watched for eruption. No eruption ever appeared, and, one month later, all the sores were healed, and there was not the slightest hardness or duskiness of the scars. I then ventured to express, for the first time, a confident opinion that there was no syphilis in the case.

Looking at all the facts of this case, it seems very probable that the sores resulted from a quasi-specific venereal poisoning, and were non-infective chancres. The patient from whom the poisoning occurred was a young unmarried woman, who had borne a child, and who suffered from papillary growths in the canal of the cervix, attended by much discharge. She died after the operation, and no investigation could be made as to whether she had ever had syphilis. The sameness in the conditions of the various sores, their steady persistence for a certain time, and their final satisfactory disappearance under the persevering use of iodoform, are facts which all fit with the idea that they were non-indurated venereal sores (that is, chancroids). The absence of gland-enlargement goes, I think, for very little; since, as I have stated elsewhere, it would seem that such sores are but rarely attended by buboes of any kind.

Second Attacks.—In 1839 Ricord made the important observation that a person who had once had syphilis was not liable to have it again. Although he believed that exceptions to this law were possible, and was anxious to admit them, yet, up to 1858, he had met with none which satisfied his mind. In the following year occurred the first case in which he himself witnessed and treated two attacks of undoubted constitutional syphilis in the same patient. The interval was nineteen years. Although with the profession generally, and even with the public, the good news that no second attack was possible spread widely, I doubt whether it ever received the unquestioning

acquiescence of any authorities. Diday recorded many exceptional cases, and thought that the second attack occurred when the first was incomplete, and in some sense supplemented it. Thus, if the patient's skin had suffered in the first and his mucous membranes escaped, the reverse would be the case in the second. Later on Gascoyen and Fournier published many exceptional cases. I have myself seen many in which the patient's narrative was clear that he had had a former attack, and several in which I myself attended the patient in both. It is, I think, now generally accepted that second attacks after considerable intervals are not very uncommon; but, at the same time, that Ricord's law holds good in reference to a very large majority. The exceptions—that is, second attacks—are probably not more frequent than in the case of variola and measles. Diday's supposition that they supplement the first has not been confirmed by other observers, nor does there exist any trustworthy evidence as to the nature of the modifications which they manifest. Sometimes they are very slight and sometimes very severe; but exactly the same differences are observed between attacks which are the first which the patient has had.

As a rule, when a patient contracts syphilis a second time, it is after an interval of many years, and after, apparently, very perfect recovery. Neither of these statements is, however, absolutely true; I have seen a well characterized indurated chancre due to fresh contagion, within a year of the first, and before the patient was well rid of his symptoms. I have repeatedly seen them in those who still suffered from reminders of their former attack. It has been proved by experiment that in occasional instances fresh inoculations on patients suffering from syphilis may produce a certain degree of induration, although as a rule they fail. On this point Mr. Lee has some valuable observations.

The Lettsomian lectures were delivered before this Society on the same topic as that I have now ventured to take, nearly thirty years ago, by one whose memory is regarded, I am sure, by not a few present with feelings of affectionate regret. Mr. De Méric, in dealing with the question of second infections, then spoke very strongly, and although he did not deny their possibility, affirmed that there was no reliable case on record. This statement led to the publication, by Mr. William Allingham, of a case which had been recently under his observation, so extraordinary that I might

have failed to give it the attention which it deserves, were it not that I have had, as just stated, in my own practice, one almost exactly parallel. A gentleman contracted a chancre in February, and took mercury until the hardness disappeared, but no longer. In May he had rash and sore throat, and again took a short course of mercury. Having left it off for a month or more, he returned, in July, with another chancre, which he believed to be the result of fresh contagion, which was not in the site of the former one, and which presented the most characteristic induration. This sore yielded but slowly to mercury, and was followed by rupia, and eventually by periostitis. It is obviously, in such cases, impossible to say whether or not the second sore is the cause of constitutional symptoms, or whether it in any way modified or augmented the effects of the first. It is always quite possible, after such a short period, that all that follows may be the result only of the first sore. I do not, however, see any reason why we should doubt that second attacks may complicate previous ones; indeed, I think I have witnessed facts which very strongly indicated that such a mixture had occurred. If it be objected that these second attacks, especially after such very short intervals, constitute a feature of clear departure, in the case of syphilis, from what we witness in the exanthemata, I must rejoin that we must not feel too sure of that. It is by no means certain that closer observation may not show that in these latter the specific poison of each is, in rare instances, capable of breeding again in the blood after very short intervals. Some of the facts as to vaccination certainly favor that suspicion. Be that as it may, however, we must take the facts as to syphilis as we find them; and candid observers will, I feel sure, not unfrequently encounter most startling exceptions to general rules.

I am precluded by want of time from mentioning cases in proof of second attacks; for I should have to produce a considerable series, and their details are long. I may, however, venture to produce one, and may assure my audience that I have several in which the evidence is just as good. I attended, almost twenty years ago, a young surgeon for syphilis. The disease hung about him, and it was two years before he finally left off mercury. He then married, and he had one or more healthy children. After an interval of about eighteen years he came to me with a chancre on his upper lip, contracted, as he supposed, from a scratch by a broken vaccine-

tube. This chancre was a very large one ; and it was attended by a very large bubo, and was followed by a most copious eruption. It was, indeed, one of the most severe attacks of syphilis which I have seen for some time.

Incubation-Periods.—It may seem strange that, after the amount of attention which the natural history of syphilis has received from many excellent observers, the length of the incubation-period of chancre should still remain a mooted point. The differences of opinion are, however, very great. Thus, Ricord said that induration occurs most frequently during the first or second week after contagion ; never before the third day, nor after the third week. Sigmund, of Vienna, dealing with 261 observations, found only three with an interval as long as three weeks, and none with longer ; whilst in as many as seventy-one it was only nine days. Other observers have given longer periods ; and Mr. Berkeley Hill, with unwearied love of accuracy, and making use only of experimental inoculations, has constructed for us a table which seems to prove that the average period is twenty-four days, the extremes being ten and forty-six. The table comprises thirty-seven cases. Fournier and Clerc give it as twenty-one days. It is admitted that neither differences in the source of contagion nor in the part affected make any difference in the length of the period during which the poison remains quiet. If I were to speak from my own experience only, I should be inclined to make the inoculation-period longer than any of the observations just quoted, and am obliged to admit that the statements of Sigmund and Ricord are almost inexplicable. I can only suppose that there has been some misunderstanding as to what phenomena constitute the limits of that period, or that it has even been counted, not from the date of the contagion, but from the first appearance of a sore. In this last supposition I am countenanced by Dr. Taylor, of New York, the very able editor of the last edition of Bumstead's work. If by incubation-period we mean as I contend we ought to do, the interval between contagion and the production of an induration which can be diagnosed, then I believe we shall seldom find it less than five weeks, and more often six. If we date to the first appearance of a sore, then it will be a week or ten days shorter, for the development of hardness takes that time. In these statements we of course put aside the very numerous cases in which a sore is present almost from the first,

the chancre having been a mixed one. To this class I would unhesitatingly assign all in which the period is said to be short, for it is not the fact that the soft sore always shows itself directly after contagion. I believe that the inoculation-periods of uncomplicated infecting sores are far more regular than is supposed. When the data are obtained from the statements of patients, they are obviously exposed to much fallacy. Many and many a time has a patient, who had assigned a period so short as to be, to me, incredible, admitted, in cross-questioning, that he had also exposed himself to risk a few weeks earlier than the occasion he had mentioned. As regards unusually long periods, there is always the same doubt as to correctness of testimony. It will be seen that, in Mr. Hill's tables of intentional inoculation, in no case was the period longer than forty-six days, or rather more than six weeks. No aberrant case, either in the direction of very long or of very short periods, that would bear investigation, has ever come under my own notice. I will briefly cite the following facts from my own observation, and leave them to make their own impression on your minds.

In the case of a medical man who vaccinated himself in the forearm from a syphilitic infant, the punctures, which had quite healed, became irritable on the twenty-first day, and were well characterized chancres on the forty-first.

In another series of cases of vaccination-syphilis, eleven patients received the virus on the same day. In all, the punctures, or vaccine-vesicles, healed; and in all they became irritable at the end of the fifth week, and were well indurated at the end of the eighth. In a father and son it was especially noted that the irritation at the site of puncture began on the same day.

The following are also from my own note-books:

1. A married physician, Dr. A., on one single occasion, went astray. He carefully observed all that followed, and it was not till the forty-second day that a pimple under the prepuce was noticed. A chancre developed itself, and syphilis followed.

2. A surgeon of much experience gave me the following fact; the circumstances occurred to himself. He had intercourse of a suspicious nature on one occasion only. He had observed nothing whatever on the penis until five weeks and three days had elapsed, when he found a small papule. This soon after became indurated, and was followed by secondaries.

3. About the same time I had another patient, who had a chancre after a single intercourse, and who alleged that he was certain that there was no visible sore until five weeks after the exposure.

4. A well-trained observer (M. B. Lond.) exposed himself to the risk of syphilis on a single occasion, on March 4th, and then anxiously noted the results. On the morning after connection he had a little abrasion on the prepuce close to the glands. He used lead-lotion, and in three days it healed. It remained quite sound until the second week in April, when it began to look a little dusky. On April 17th it was decidedly swollen, and just beginning to ulcerate. On April 23d it was definitely indurated, and showed in the centre a group of minute ashy grey ulcers. At this date he had no rash, and no appreciable enlargement of the glands. There being not the slightest doubt that the induration was specific, I now directed him to take mercury. The course of events here illustrated is, I think, a very usual one. A small sore was noticed almost immediately after exposure, which healed in a few days. Then followed a four weeks' period of rest, and then inflammation about the little scar, and specific induration. It will be seen that seven weeks had passed before the induration was marked.

5. A young gentleman was brought to me by his uncle, suffering from syphilis. The first ailment had been gonorrhœa, and soon after this was cured, and whilst he was still under medical treatment a chancre had shown itself. His guardian said that he could forgive the lad for having been led astray, but that he felt keenly his untruthfulness, for he persisted in saying that he had exposed himself to risk only once. The surgeon who had treated the gonorrhœa had said that this story must be false, because he had during a whole month frequently inspected the penis, and was certain that there had been no trace of a chancre until five weeks after the advent of the urethral discharge. I was obliged to explain that I did not think sufficient allowance had been made for the incubation period, and that, in all probability, the lad's statement was correct. My assurance on this point not only did the lad an act of justice, but was a source of real gratification to his guardian.

6. In another case a young gentleman was exposed to risk of contagion but once. He caught a gonorrhœa, which developed immediately. Nearly five weeks after the exposure two sores showed themselves on the skin of the penis, and one on that of the abdomen,

between the umbilicus and pubes. They all assumed the condition of large indurated chancres, and severe secondary symptoms followed.

Recurrent Chancres of False Indurations.—In connection with the doctrine as to second infection, it is very needful to appreciate the fact that chancres may occur. I believe that I was myself the first to draw attention to the very curious group of cases which illustrate this fact but two years after my brief notice of it; and, quite independently, M. Fournier wrote a far more complete account of the phenomena. Briefly, it is quite possible, and not a very rare occurrence, for indurations to develop, in the retrocoronal fold of the prepuce, which assume the most exact resemblance to hard chancres, but which are not consequent on any fresh contagion. They occur to those who have had syphilis, and usually, but not invariably, on the site of former chancres. They may happen repeatedly to the same individual, and cases in which this occurs afford the clearest proof that they are not newly-contracted sores. They may occur at very various periods after syphilis, but usually within five years. Thus they are not to be associated with the phenomena which are definitely tertiary; at any rate, not so many in instances. Nor do they, as a rule, resemble tertiary gummata in the tendency which the latter have to grow irregularly, and to a large size; nor do they usually break down or slough-like gummata. For the most, they retain throughout the most exact resemblance to the ordinary collared chancre, and they are often wholly without ulceration. For myself, I have never, with one exception, seen them in any other position than that mentioned, the fold of mucous membrane just behind the corona; the most ordinary position for the best characterized primary sores. No doubt the development has something to do with the anatomical peculiarities of this part. Under mercurial treatment they melt away very quickly, and they are, I think, rarely attended by enlargement of glands, and never followed by constitutional disease.

The disease in which a chancre, not on the penis, recurred, was one in which disease had been due to vaccination. In this instance, about four years after the first disease, one of the scars, which had for long been perfectly sound, again inflamed, and became dusky and slightly hard at its edges. Mercury very quickly, as a rule, but not always, takes away these recurrent chancres, and they are not, I believe, usually attended by any other proofs of tendency to recrudescence of the constitutional taint. I have known at least one instance in which

a gentleman had his chancre indurate again repeatedly during several years, and generally with about a year's interval between the attacks, and yet he remained otherwise in perfect health. I am not sure that, in some cases, the induration may not subside spontaneously, but I have never tried the experiment of leaving them without treatment.

I will relate, as an illustration of this occurrence, a case which I have seen this morning, and with the particulars of which you, Mr. President, are cognizant, for it was on your kind suggestion that I saw the patient. This gentleman, in 1882, had warts, which were cut away. He inoculated the wounds before they had healed, and had sores, which were followed by sore throat, loss of hair, and sores at the anus. For these he took specifics very mildly. Then followed three years of good health, and then a return of the chancres. At the present time he has two small collar-chancres in the reflected prepuce. They are as hard as cartilage; one of them, he is certain, is exactly in the site of a former sore, but respecting the other he is not quite so sure. Circumstances, into the detail of which I need not enter, make him feel sure that he has not contracted fresh sores.

On Induration as a System and on Syphilis without Chancre.—That we have been in the habit of attaching far too much importance to the condition of induration as an almost essential characteristic of the initial lesion of syphilis, the observers of to-day are, I think, pretty well agreed. When a sore takes on induration, it is, provided, first, that the patient has never had syphilis before, and, secondly, that no caustic has been used, a certain indication of coming syphilis. But the absence of induration goes for very little in the way of evidence, and it may vary in degree and in induration within very wide limits indeed. In many cases it lasts only a very short time, and is only very doubtfully marked; in others, it may, in size and duration, simulate a new growth. In women it is often very ill marked, and its characters vary much in relation to the special tissue affected. Such being the admitted, I may say the every-day facts, it is necessary to use this symptom with great caution in the diagnosis of syphilis. How variable in character, for instance, are the initial lesions as we observe them on the fingers of surgeons. I have more than once seen severe syphilis follow a midwifery chancre, which was never more than a little dusky, scaly spot, not so large as a threepenny-bit, and never in the least excoriated.

If, however, we admit all this, we may still hesitate to admit that

syphilis can begin with any chancre whatever. Yet for practical purposes that is the conclusion to which we must come. In other words, there are cases in which the closest scrutiny, aided by a patient who is not only candid but skilled as an observer, wholly fails to discover any initial lesion. These cases divide themselves into two groups, those in which an attack of gonorrhœa preceded the constitutional symptoms of syphilis, and those in which no local disease of any kind was observed. Both of these groups are, I believe, fully recognized by most authorities. Respecting the last, it is undoubtedly possible, indeed, in most instances, probably true, that a chancre had been present and had escaped recognition. Thus in the mouth, and especially on the tonail, a sore, which was really the primary one, may not have been noticed until other symptoms appeared, and may then have been counted as part of the secondary group. I have seen several instances of this. On the genitals of women very frequently, and in men sometimes, a small indurated sore may cause such slight irritation that its existence is never discovered. But, making every possible allowance for such sources of fallacy, there still remain a few cases in which careful observation from the beginning has quite failed to find a sore, and in which every possible region has been searched. I recollect several of this kind in which medical men were the patients. In these there was no cause for concealment, since exposure to risk was fully admitted, and the nature of the final disease recognized, and yet no clue to the original sore could be made out. If we still, as a matter of hypothesis, cling to the belief that there must have been a sore, these cases, in their practical bearing, remain very important. Is it possible that intra-urethral chancres may occur without pain, without signs of obstruction, without external hardening, and without discharge? Such is the suggestion of some, but it does not seem very probable.

Gonorrhœa-Syphilis.—The frequent occurrence of cases in which syphilis follows what was considered to be only gonorrhœa, suggests the suitability of recognizing what we might call gonorrhœa-syphilis. It is known to all that Hunter regarded the poison of gonorrhœa as identical with that of syphilis, and, no doubt, it was the occurrence of cases such as I now refer to which had caused his belief. There is no danger now that the name I have proposed should mislead any into adopting again his erroneous generalization. Cases of gonorrhœa-syphilis must be familiar to all who have opportunities for observa-

tion. The urethral inflammation is exactly like that of gonorrhœa, and by no means suggests a urethral chancre; and, in many cases, the urethra has been examined carefully with the hope of discovering local induration or a tender spot without result. I could cite several cases of this kind from my own note-books, but I shall probably employ our time more convincingly by reminding you of the observations of others.

Mr. Lee relates, from Mr. Marston, a case in which two soldiers contracted gonorrhœa, on the same day, from the same woman. Both remained under observation from the second day, the discharge having commenced immediately after exposure. One of them, who had had syphilis before, recovered without any other symptoms than those of gonorrhœa, but in the other syphilis followed. In the latter, Mr. Marston passed sounds, and tried to discover a local induration, but without avail. The woman who had infected these men was the subject of a cutaneous syphilide, and had vaginal discharge, but no sores could be discovered in her.

In connection with these cases Mr. Lee quotes the opinions of Mr. Pearson and of Swediaur, both of whom held strongly that syphilis not very infrequently followed a urethral discharge indistinguishable from gonorrhœa, and wholly without the occurrence of chancre.

Mr. Hill has recorded an interesting case, in which the only initial lesion discovered was a general hardening of the whole penile urethra (presumably with gonorrhœal discharge). In explanation of these facts, it may be admitted at once, that there is nothing in the least improbable in the supposition that the particulate virus of syphilis may exist in gonorrhœal pus. If a patient, the subject of secondary syphilis, should contract gonorrhœa, no doubt the virus would pass into the discharge, since we know that it is present in the blood, and finds its way into all products of inflammation. Witness its presence in the transparent lymph of the vaccine vesicle. Given, therefore, a person suffering from both gonorrhœa and syphilis, what would be the probable result of contagion? Very likely, as is often seen, a gonorrhœa immediately and a chancre four or five weeks later; but if the latter were omitted, it is still conceivable that the gonorrhœa might allow the absorption of the virus. Possibly, the acute inflammation of the urethra may act in preventing the local adhesive inflammation, which constitutes the conspicuous part of a chancre. This seems a more probable hypothesis than that the virus is absorbed directly,

without the intervention of any sore at all. It is to be noted that in gonorrhœa-syphilis there occurs usually definite induration of the inguinal glands. A certain number of experiments have, I am aware, been tried with negative results, in the inoculation of gonorrhœal pus from the male urethra, the patient being the subject of syphilis. M. Basset, as quoted by Hill, inoculated in this way six persons, without result. It is not improbable that the poison of syphilis is under such circumstances much diluted, and perhaps placed under disadvantages. It is impossible to accept the evidence of such experiments as conclusive, when we remember how frequently vaccination from syphilitic infants proves innocuous, whilst it succeeds with virulence in a few. Tarnowsky (also quoted by Hill) inoculated eighteen times with the purulent discharge from the vagina of a syphilitic woman, who had no local sore. Only once did he succeed in producing a chancre, which was followed by syphilis. Mr. Morgan, in his experiments, very properly declined the responsibility of inoculating non-syphilitic subjects; and I should certainly, for one, regard a repetition of the experiments of Basset and Tarnowsky as wholly unjustifiable.

Syphilis Conveyed in Vaccination with Clear Lymph.—A question which was a few years ago in dispute, but which has, I may say, unfortunately, been finally set at rest, is the possibility of conveying syphilis by translucent vaccine-lymph. The belief that it was necessary to draw blood, or, at any rate, to allow the vesicle to drain after emptying it, and thus permit the escape of fresh leucocytes, can no longer be entertained. One of our own profession, with that enthusiasm for knowledge which Hunter displayed in a parallel experiment, made himself the victim, and placed the facts beyond the reach of doubt. The facts of the case are probably known to many present: but as they may be new to some, I may be permitted to relate them. They came under my personal cognizance, but, for obvious reasons, I do not mention names. The gentleman to whom I refer vaccinated his own arm repeatedly, and in many places, from syphilitic infants, being very careful on every occasion to use only clear lymph. On the first two occasions he failed, but on the third he succeeded, and three indurated chancres were the result, followed in due course by constitutional symptoms. The incubation-periods I have already mentioned, the punctures inflamed on the twenty-third day, and were well indurated on the

forty-first. It is impossible not to admire the self-devotion which prompted to this experiment, and especially to the perseverance and repetition of it. Had that repetition not taken place, and had a report of results been given to the world after the first two trials, how strong would have been the conviction of all in the truth of the creed that pure lymph, even from infected vaccinifers, is safe. Not often, probably, has our science had so near an escape of being encumbered by a false fact.

The interest of this demonstration does not end with its relations to the practice of vaccination. It proves that the virus of syphilis may exist in a perfectly clear fluid, and in company with that of another specific fever. We know from experiments that if the purulent secretion of soft sores be filtered so as to get rid of pus-cells, it is no longer inoculable. The converse is probably true of the virus of syphilis. The contagium of the one is pus, that of the other the particulate micro-parasites of a specific fever.


Now, Mr. President and gentlemen, permit me, in conclusion, briefly to recapitulate. We have concerned ourselves this evening almost solely with the exceptional of the phenomena which occur in connection with primary sores. We have glanced at the topics of incubation-periods; of recurring induration; of the occasional absence of the usual conditions in primary sores; and at the explanation of the differences presented by different sores of venereal origin. I have tried to reconcile the doctrines of the dualist and the unicist by showing that both are in a sense right, with, however, an abiding protest that there is but one syphilis. I have spoken also of the relations of phagedænic action to syphilis, expressing a belief which I have often expressed before, that syphilis is in truth the parent of almost all phagedæna. By reference to this doctrine I have tried to explain the origin of hospital-gangrene. Lastly, I have mentioned briefly the sad, but important and final proof, that clear vaccine-lymph may contain the virus of syphilis. On most of these topics it has been my pleasant duty to rest my conclusions quite as much on the observations and opinions of others as my own. Although I have not often, under the exigencies of the occasion, found time to mention names, yet I may now say that the excellent works of Henry Lee, Berkeley Hill, Fournier and Bumstead have been laid under constant requisition in preparing statements which I have made this evening. Although I cannot pretend that there are no differences of opinion, it has been a great pleasure to note a very general unanimity of testimony on most points,—
British Medical Journal.

EDITORIAL.

THE NORTH CAROLINA MEDICAL JOURNAL.

A MONTHLY JOURNAL OF MEDICINE AND SURGERY, PUBLISHED IN
WILMINGTON, N. C.

THOMAS F. WOOD, M. D., Wilmington, N. C., Editor.

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WILMINGTON HOSPITAL—ITS GROWTH AND PRESENT CONDITION—THE PROSPECTS OF THE FUTURE.

Four years ago the Wilmington Hospital was established by act of the Legislature, authorized to be supported conjointly by the city of Wilmington and New Hanover county. The necessities of the public were so great that a hospital was immediately improvised in such buildings as were found standing upon an entire square of ground which had been formerly a lager-beer garden. These buildings consisted of a small two-story frame house and six small cottages. The grounds had had some attention, and were set in ornamental shrubbery. Four years ago the managers of the institution set to work cautiously and economically, and very wisely in one

respect, in securing the services of Dr. W. W. Lane as the medical officer.

The difficulties which were to be overcome were well-nigh insuperable. Preparation had to be made for the separation of the two races who were to be inmates, and also the sexes were to be provided for by some degree of separation. Nurses were to be trained from raw material and the whole machinery set in motion, and all this upon a scale of expenditure quite unknown to our more favored communities in other sections. It is with pride that Dr. Lane in his recent report to the Board of Managers sketches the rise and progress of his work. He says in one place :

"Our Managers, themselves, unfamiliar with the working of such institutions, often felt at a loss how far to go in carrying out these improvements and be just to their constituents who had the bill to pay ; but it has been noticed, with great gratification on the part of the profession, and also the community, that the Managers do now more fully realize, as time goes on, the usefulness and necessity of such institutions to society at large.

"It is the only hospital in the State carried on and supported as this one is, and it has always been my endeavor and earnest desire, in which I can with truth say I have had the warmest co-operation of the city Faculty of Medicine, and the sympathy and good-will of our citizens generally, with a few exceptions, to make it an institution in every way worthy of their support and a pride to our city and county, and, not least, an honor to the science of medicine. And furthermore, appreciating the tightness of the times, and the great depression in business, have endeavored to be reasonable in my demands and recommendations for improvements."

The surgeon in charge speaks within bounds when he says his demands for improvement have been reasonable, and we trust that he will be permitted to carry out his design of regrouping the small cottages on the Walnut street side, so enabling him to make the wards for colored people more private and manageable.

One encouraging feature of the hospital is its increasing importance to the counties nearest us. Most of the pay-patients for the past year are those who have been entered for surgical treatment, and these have nearly quadrupled in that time. The opportunity for usefulness in this direction has been clearly shown, and further facilities should be offered.

Dr. Lane reports that 149 charity patients have been treated during the year, of whom 76 were white and 73 colored. Of pay-patients 37 were white, 2 colored, making a total of 188. Of this number 16 died, 10 of whom were white, 6 were black. Total number of days of relief afforded during the year 6,333, at an expense per day of ———, including the salaries of the medical superintendent and nurses.

Of all the difficult problems to be solved in the South, next to that of education, comes the care of the indigent poor. Turn whichever way you will, the question of color constantly arises. Public libraries are impossible because of the impossibility of making satisfactory provision for both races. The same may be said of public parks and squares. The separation of the two elements in the schools is accomplished, but in a hospital, where emergencies and acute diseases are treated, proper provision for the races has to be made. This is being cautiously worked out by the Managers of this hospital, and it is so far a success. We commend this movement to other towns in the State. We believe Fayetteville and Raleigh have made a beginning, and as time goes on the charitable people in the communities who lead in such matters will find the establishment of hospitals and dispensaries the most economical way to dispense charity.

Success can only come by close attention to details as in our city hospital. The medical superintendent for four years was not absent night or day from his post, until he took a short vacation recently to visit the New York city hospital. He has carefully guarded every trust committed to him, and has fairly won by hard lioks all the reputation which the work has established. We predict steady success for this hospital as long as the medical superintendent and the Board of Managers are in such hearty accord.

MILDER SMELLING IODOFORM has been recently produced by Sohering, of Berlin, by electrolysis. It appears in silky, delicate and soft scaly powder of a pure citron-yellow color. It is not dearer than the old preparation, and it may supersede it by reason of its milder odor.

THE VIRGINIA BOARD OF EXAMINERS.

It had become so commonly reported in Virginia and elsewhere that a movement was on foot to exempt the graduates of the University of Virginia and the Medical College of Virginia from examination by the Virginia Board, that it became necessary to make an official denial in the last number of the *Virginia Medical Monthly* on the part of the Virginia Medical College. It was well-known that the movement was opposed by the Faculty of the University of Virginia. We congratulate the friends of the license law that no such blunder was committed. It would have surrendered the whole advantage gained, and years of the hardest work would hardly have overcome the mistake. We believe it to be an unjust fling, but there have been made in public and in private insinuations that the Virginia Board had already been blind to the defects of the graduates of their own State institutions, and this alone would be sufficient to induce the Board to work to attain a more thorough position in public confidence, before they commenced the work of amendment. We mention these points because it is well understood that five Southern States stand alone in the position of demanding of all candidates for the practice of medicine at State examination, regardless of their diplomas. This being so, the weakening of one State influences deleteriously the whole, and conversely.

In this connection it will be pardonable to quote from an editorial in the *New York Medical Record*, February 6th, 1886 :

“We learn that nine States and Territories have passed laws to regulate medical practice. In five of these States, viz : Alabama, Arkansas, Mississippi, North Carolina Virginia (all Southern States, it will be observed), diplomas alone are not sufficient to give a man a legal standing. He must meet the requirements of the State Board. In two of these five States all graduates are examined by county boards, and all non-graduates by a State board. In respect to the legal safeguards thrown about medical practice, North Carolina seems to be the banner State, and she seems to show her faith by her works ; for at one of the recent meetings of her State Board eleven out of fifty-three applicants were rejected, and seven more given leave to withdraw—a practical rejection of one-third of all the applicants.

"These facts show that in some sections of the country, at least, the profession is alive to its own interest, and has succeeded in impressing the general public with a sense of its own relations to the important subject of medical education. The practical results of these foremost States have been decidedly encouraging. They have shown that requisite legislation can be brought by perfectly dignified and legitimate methods of agitation; and, furthermore, that the enforcement of such legislation can easily be made an assured fact."

IS IT OVER-CROWDING THAT CAUSES IT?

We notice by scanning the newspapers of the State that there is an increasing violation of the Code—indeed, of the letter of the Code, and ordinary propriety—on the part of some practitioners, in permitting highly laudatory local notices to appear in the newspapers. It is no difficult matter to determine between a "puff" by the consent or connivance of a given doctor, and the sometimes unavoidable notice which a doctor may get by reason of his connection with a public matter of unusual interest. We have noticed recently in two Western papers such laudatory paragraphs as must have made the much-lauded doctors blush—or rather it ought. One paper had no less than three notices about the distinguished services a certain doctor was rendering his neighborhood, and the use of technical phrases clearly showed where the editor got his inspiration.

Is it over-crowding of the profession that tempts some otherwise good men to adopt such practices? For their sakes we hope this is the proper interpretation. A community is to be pitied which has to bear the infliction of a medical profession so over-crowded that they are driven to win a livelihood by such detestable methods as we have noted of late. Resolute action by county medical organizations sometimes checks the evil, if patiently and discreetly managed, and is always worthy of a fair trial.

REVIEWS AND BOOK NOTICES.

CLINICAL THERAPEUTICS. Lectures in Practical Medicine, Delivered in the Hospital St. Antoine, Paris, France. By Professor DUJARDIN-BEAUMETZ. The Treatment of Nervous Diseases ; of General Diseases, and of Fevers. Translated by E. P. HURD, M.D., etc., etc., Detroit, Michigan. George S. Davis, 1886. Pp. 492.

Dr. Hurd, the translator of this volume, introduces it to the profession by a sketch of the life and literary productions of Professor Beaumetz. It shows how active his professional career has been, and we trust the custom will become more popular of giving sketches of the lives of men who have become eminent as authors. The trouble would be in determining which authors are worthy of such a distinction.

After a short chapter introducing the subject of clinical therapeutics, the first part of the volume is devoted to the treatment of diseases of the nervous system. He takes up first "the medicaments whose effects have been the most studied and are best known, viz: the anesthetics, and from these he selects chloroform and alcohol ; the resistance of the action of certain medicaments on the vaso-motors, and so on by progressive stages conducts the willing reader through the treatment of neuralgia, of hysteria, of epilepsy, of chorea, of meningitis, of apoplexy, of chronic myelites. All along references are made to foot-notes which are in themselves almost a complete repertory of therapeutic knowledge. The historical data are especially attractive, and one is struck with the large preponderance of French authors cited as original introducers or discoverers of agents. The translator's notes, too, are many and valuable. The author speaks in terms of high commendation of the manner in which the translation has been performed, and all of our readers who have read the contributions from Dr. Hurd's pen will want to possess these lectures in this substantial form.

THE DISEASES OF SEDENTARY AND ADVANCED LIFE. A Work for Medical and Lay Readers. By J. MILNER FOTHERGILL, M.D., etc. New York : D. Appleton & Co., Bond St., 1886. Pp. 296.

This work will be more widely read by lay readers than by

doctors ; but, judging by the numerous hints we find on nearly every page about the little things—the slight ailments—which would be beneath the dignity of a purely scientific volume, it would be well for even well-informed physicians to read it. When we remember that our success as doctors depends largely upon the aid we can give persons in the slight ailments which are not of importance enough to require serious treatment ; when we remember, too, that our ability to impart useful hints at our visits in the inevitable conversations into which we are daily drawn by those whom we serve as the family adviser, it is highly important that our storehouse of knowledge should be filled from every available source. In this interesting volume will be found a fund of good things easily available.

A friend whose life has been sedentary by reason of physical infirmities, and who pursues the laborious calling of a teacher, says he has found one hint in this book which alone has added largely to the comfort of his life. We trust it will attain a wide circulation among the sick people we serve !

PRACTICAL SUGGESTIONS RESPECTING THE VARIETIES OF ELECTRIC CURRENTS AND THE USES OF ELECTRICITY IN MEDICINE, etc. By AMBROSE L. RANNEY, M.D. New York : D. Appleton & Co., 1, 3 & 5 Bond St.

So many books on electricity seem prepared for the one purpose of lauding this or that maker's instruments, that the reviewer looks a little suspiciously upon all the books in this line. This book, though, is not to be classed in the above category. It was written for medical students, and takes the reader from the elements of electricity to the application of this agent in disease. Electricity is comparatively little used outside of the larger cities, because of the expensiveness of a good outfit and the inconvenience of getting repairs done on batteries, and also because few practical men have placed much reliance in electrical therapeutics as once taught. But now that electricity is assuming a more important position, it becomes a necessary study. We recommend this little volume to all who are desirous of studying the simplified elements. It is well illustrated, and not too voluminous.

HERBARIUM OF MEDICINAL PLANTS.

We ask attention of our readers to an opportunity of procuring

a set of the medicinal plants of the Eastern and Southern States, duplicates of the *Materia Medica* exhibit of the National Museum at Washington. These plants are pressed and dried, mounted on stiff paper, correctly named, both botanical and popular names given; also the flowering period and habitat of each. The specimens are poisoned with corrosive sublimate to protect them from insects. One hundred specimens can be purchased for \$7.00, unmounted, or \$9.00 mounted on postal-card manilla, or \$10.00 on standard white herbarium paper. List and specimens for examination will be sent upon application to Mr. Gerald McCarthy, Kendall Green, Washington, D. C. We commend these specimens to our friends, as especially valuable as standards of comparison to enable them to determine plants they meet in their practice. A lack of technical botany is largely overcome by the possession of these standard plants.

DIAGNOSIS OF DISEASES OF THE BRAIN AND OF THE SPINAL CORD.

By W. R. GOWERS, M.D., F.R.C.P. New York: Wm. Wood & Co., 1886.

This work is a collection of lectures delivered by the author at University College Hospital, London. Every work is welcome which can make the most complex of all diseases—those of brain and spinal cord—more easily diagnosticated, and for this reason we can commend this one. It was written for medical students, and is divested of everything not necessary to a comprehension of what can be safely taught as established. Debatable theories are not dwelt on.

MIND YOUR EYES

Is the title of a dainty booklet, translated from the French of Francisque Sarcey, by Dr. Bruns, of New Orleans. It is the charming story of a near-sighted man who had the wit and the skill to portray his own sensations all through the revelations which befel him by the accidental application of his father's spectacles in a boyish prank to his myopic eyes, and his vivid recollections of a cataract extraction. It is a valuable lesson to advise our lay patrons to read it, and they will prove themselves doubly myopic if they cannot enjoy it.

A TEXT-BOOK OF OPHTHALMOSCOPY. By EDWARD G. LORING, M.D.
Part I.—The Normal Eye, Determination of Refraction, and Diseases of the Media. 8vo., 267 pp., with 131 Illustrations, and Four Chromo-Lithograph Plates, containing Four Figures. Price, cloth, \$6.00. New York: D. Appleton & Co., 1, 3 & 5 Bond Street.

At this time, when a number of new medical books are daily put upon the market, it is a pleasure to find one, now and then, which explains clearly to the many the principles hitherto understood only by the few. Dr. E. G. Loring has written a very valuable book, and one which every physician, who uses or wishes to use the ophthalmoscope, should possess.

In the "Appendix" is a succinct statement of the optical principles involved in the manufacture of ophthalmoscopes and in ophthalmoscopic examinations. The method of making an ophthalmoscopic examination is well demonstrated. The anatomy and histology of the eye are clearly described and illustrated. The determination of the normal fundus and media of the eye are made plain. It requires and merits careful study to understand all its contents.

The book had a master of its scientific principles for its author and a master of the book-maker's art for its publisher. Both united give us an unique book. So far as we know it has, in this branch of ophthalmic science, no equal in the English language.

CUTANEOUS MEMORANDA. By HENRY G. PIFFARD, A.M., M.D.
Third Edition.

This little pocket edition on skin diseases has reached its third edition, showing how it has recommended itself to the medical student. It is a remembrancer of value for the purpose for which it was designed.

PASTEUR'S PORTRAIT.

We are indebted to Messrs. W. R. Warner & Co., of Philadelphia, for a photo-engraving of Pasteur. He has a substantial, capacious head, with every appearance of a man of profound intellect, and not the least suggestion of the typical French lineaments.

CURRENT LITERATURE.

TREATMENT OF CHRONIC GONORRHŒA.

The cure of a chronic gonorrhœa is so difficult and rare that the affection is almost regarded as an opprobrium of the profession. There are men who are troubled by the "morning-drop" for years in spite of every known medication. An especial danger of the chronic gonorrhœa is its proneness to resume an acute nature. Family disturbances are not infrequently caused by the presence of this affection in the husband, on account of the indisposition of the latter to fulfil his marital obligations. We agree with Dr. Caspar, of Berlin, in blaming not so much the lack of efficiency of the usually employed medication as its improper application. Dr. Caspar's essay on the subject, appearing in the *Berliner Klinische Wochen.* of December 7, 1885, contains some instructive suggestions which invite our interest.

Examining the anatomical relations of the parts implicated in gonorrhœa, we find the male urethra to be a tube of fifteen to eighteen ctm. long, which is so materially different in its various portions that it is *a priori* improper to designate the affection of every portion collectively as gonorrhœa. The pars membrana and prostatICA ought to be as strictly separated as is the cervix uteri from the fundus. An inflammation of the pars spongiosa need not necessarily affect the membrana, and *vice versa*. Most chronic gonorrhœal affections are situated in the bulb, or in the border lines between the bulb and pars membrana. Of one hundred callous strictures about seventy occur in the stated regions, twenty in the fossa navicularis, and ten only on other localities of the pars spongiosa. These are the favorite seats of chronic gonorrhœa, though, of course, we occasionally find a gonorrhœa in the posterior portion of the urethra. Still these are exceptional cases. We have, hence, to deal with a gonorrhœa which is either an anterior one, an anterior and posterior one, or a posterior one solely.

Most of the ordinarily-employed therapeutic interferences in gonorrhœa are useless. This is especially true of the inevitable

injection, which does not go beyond the musculus compressor unless an inordinate pressure is used. When the liquid impinges on this sensitive region the musculus compressor closes the urethra by reflex action, and forbids the entrance of the liquid beyond. The mere manipulation of drawing the hand from the meatus to the musculus compressor upward does not remove the spasm of the urethra, as has been asserted by some authors.

The most important matter is to decide whether the gonorrhœa is an anterior or a posterior one, which can be readily done by noting the behavior of a fluid injected into the urethra by means of a catheter. If the fluid flows out from the sides of the catheter, we know that the point of the catheter rests in the posterior portion of the urethra. But if the fluid returns directly by the mouth of the catheter, we know that its point rests in the bladder. This recognition is, of course, of the highest practical importance. We draw, hence, the following conclusions: Everything that collects in front of the musculus compressor returns by the urethral orifice; everything that collects in the posterior urethra flows into the bladder, on account of the inferiority of the internal sphincter muscle regarding the musculus compressor. This will suffice to determine the differential diagnosis between an anterior and posterior gonorrhœa. If the lips of the urethral orifice are glued together, or a few drops are noted in front of it, or if the clothing shows pus-spots, we can be reasonably certain that the affection is situated in front of the bulb. If these conditions are absent the correct diagnosis is less easy. Often the patients complain of a certain prickling or burning sensation on a certain circumscribed region of the urethra, which of course is then to be regarded as the seat of the gonorrhœa. At other times we succeed by examining the urethra with the button sound and marking the sensitive spot. If a frequent desire to urinate should be found to exist, we can conclude that we deal with a posterior gonorrhœa. If alongside of this desire to urinate frequently pus-drops appear on the meatus, or its lips are glued together, or pus-spots are found on the clothing, we probably have an anterior and posterior gonorrhœa combined, although the absence of the stated desire does not justify the assumption that there is no posterior gonorrhœa existing in a given case. In the acute posterior gonorrhœa we find invariably the desire to urinate frequently, while in the chronic form this symp-

tom is often absent. The endoscope occasions necessarily so much pain that its employment is not advisable.

The following method of arriving at the proper diagnosis is preferable: The patient, after having not urinated for five or six hours, is asked to urinate into two glasses. If the first portion of the urine has a flocculent appearance, while the second remains clear, we have to deal with an anterior gonorrhœa; if, however, both portions are turbid, we have a posterior gonorrhœa. These symptoms, however, have a diagnostic value only in cases with a considerable secretion. In these cases we are, besides, certain to find the drop on the orifice, the gluing together of the lips of the meatus, and the pus-spots on the clothing, if the gonorrhœa be an anterior one. Likewise would a considerable secretion in the posterior urethra, by flowing into the bladder and rendering all the urine turbid, make itself distinctly known. If, however, the secretion is so small that it could not reach the meatus nor the bladder respectively, we would have the following results;

1. In both cases we would find no traces of the catarrh on the urethral orifice.

2. In both cases the first portion of the urine would be flocculent, as the secretions are rolled up, as it were, by the first portion of the urine, and driven out of the urethra, no matter in which section of the urethra these secretions are situated.

3. In both cases the second portion of the urine will be clear.

In most cases, however, the mentioned method suffices to arrive at the proper diagnosis.

The difference between a cystitis and a posterior gonorrhœa is easy enough. In both affections both portions of the urine are turbid, but in posterior gonorrhœa the first portion is necessarily more turbid than the second one, while in cystitis just the reverse condition takes place. This latter fact is brought about by the pus settling according to the law of gravitation in the deepest portion of the bladder, and being ejected only by the last portion of the urine.

Basing on these views, Ultzmann constructed his well-known instruments, which are usually employed with great success.

If, however, a stricture has been forming, or is about to form, the named instruments will be found to be insufficient.

It is well known that the gonorrhœal inflammation in contradistinction of a urethritis does not limit itself to the mucous membrane

of the urethra, but enters the submucous tissues, the corpora cavernosa, and muscles. The product of this inflammation is a cellular infiltration of the affected parts, which leads to cicatricial tissue, and forms a stricture. At the same time epithelial cells are being constantly formed on the mucous membrane, the death and exfoliation of which furnish the material for the secretion of the chronic gonorrhœa. The glands and lacunæ Morgagni, and even Littré's glands, participate in the morbid process. Dittel regards the characteristic gonorrhœal threads and the goutte militaire as the product of the catarrh of Littré's glands and of the sinus Morgagni. We thus gain the conviction that even in the absence of an actually existing stricture the entire gonorrhœal process must be regarded as the forming stage of a stricture, or, as Otis calls it, a stricture of a wide calibre. At the same time we can now understand that astringent and antigonococcic medicines cannot cure a gonorrhœa.

A radical cure must combine means to eliminate the cellular infiltration and to heal the catarrh. Hence the so-called progressive sound-treatment proved successful in many cases, and Unna's method, to employ bougies invested with a soluble medical coating, initiated a new and thoroughly satisfactory era for the treatment of gonorrhœa. The modification of Unna's bougies, introduced by Dr. Caspar, of Berlin, will be certain to prove a great improvement, and ought to receive a careful trial with us. Caspar constructed a sound of German silver having numerous canals on its body. The sound is slightly conical, and twenty-five cc. long. It usually has about six of the stated canals, which are of a depth of one and a half mm., and flatten off toward their anterior portion, and are wholly absent at a distance of five cc. from the point of entrance. (The instrument is manufactured by M. Tasch, Berlin, Schlossfreiheit.) These sounds are invested with an ointment-mass, which in a melted condition is poured into the canals, where it soon grows solid.

As ointment-mass the following recommends itself:

Cacao, 100 parts ;
Cer. flav., 2-5 parts ;
Argent. nitr., 1 part ;
Bals. Peruv., 2 parts.

A three per cent. resorcine-ointment might also be used, but it is in no way superior to the above mass. The *modus operandi* is as follows :

Two teaspoonfuls of this mass are placed in an evaporating vessel having a mouth, and warmed over a flame slowly and carefully. The vessel ought not to attain a degree of warmth which prevents it from being touched by the hand. After the mass has melted the canals are filled with it and allowed to solidify. The instrument must be thoroughly round and smooth. The anterior smooth part is to be anointed with vaseline in order to allow of a painless and easy entrance into the urethra. The instrument guarantees that the medicine reaches the exact locality on which it is needed. The sound passes beyond the stricture, and the ointment melts at the temperature of the urethra in the course of a few minutes, and can thoroughly medicate the affected portion.

Ten to twenty applications are, according to Caspar's statement, usually sufficient to cure even an obstinate case of chronic gonorrhœa. Thirty of the most rebellious gonorrhœal affections were cured by him permanently, although fourteen of them had lasted over six months, and six over one year.—*Therapeutic Gazette*.

THE PHYSIOLOGICAL ACTION OF TOBACCO.—In the Fiske Fund Prize Dissertation, No. XXXIV., entitled "The Physiological and Pathological Effects of the Use of Tobacco," recently published by Messrs. P. Blakiston, Son & Co., of Philadelphia, the author, Dr. Hobart Anthony Hare, presents the facts and arguments that have led him to the following conclusions: 1. Tobacco-smoking does not decrease the urine eliminated, but rather increases it. 2. Tobacco does retard tissue-waste. 3. Tobacco and its alkaloid cause convulsions in the primary stage of the poisoning, by depressing the reflex inhibitory centres in the cord. 4. It causes the palsy of the second stage, by paralyzing (a) the motor nerve-trunks, (b) the motor tract of the spinal cord. 5. The sensory nerves are not affected by the drug. 6. Nicotine contracts the pupil, by stimulating the oculo-motor and paralyzing the sympathetic, this action being peripheral. 7. Nicotine primarily lowers the blood-pressure and pulse-rate; (a) secondarily increases pressure and rate; (b) thirdly, decreases pressure. 8. The primary lowering of pressure and rate is due to pneumogastric stimulation, associated with vaso-motor dilatation. 8. The secondary stage is due to vaso-motor constriction and pneumogastric palsy. 10. The

third stage is due to vaso-motor dilatation returning. 11. Death in poisoning from this drug is due to failure of respiration, the action of the drug being centric. 12. The blood-corpuscles are broken up and crenated by the action of the poison. 13. In death from nicotine-poisoning the blood shows changes in *spectra*. 14. Death can be brought about by the cutaneous absorption of nicotine. 15. Tobacco increases intestinal peristalsis in moderate amounts, and produces tetanoid intestinal spasms in poisonous doses. 16. The liver seems to destroy the poison, although this destruction is participated in by any set of capillaries in other parts of the body. 17. Tobacco-smoking increases the pulse-rate and decreases arterial pressure.—*Therapeutic Gazette*.

NOTES.

"OCULISTS are the jewellers of surgery."—SARCEY in "*Mind Your Eyes*."

M. JULES GUÉRIN, the "Father" of the Academy of Medicine, died at Hyeres, aged 85.

CONGENITAL amblyopia of one eye is, I believe, the general condition of patients with convergent strabismus, and the resultant loss of single vision with two eyes, is perhaps to be found the fundamental condition of the production of convergent strabismus.—*Dr. Roosa, Medical News, Feb. 6*.

PAINLESS ESCHAROTIC FOR NASAL CAVITIES.—The addition of hydrochlorate of cocaine to nitric acid in sufficient quantity to form a saturated solution, not only renders its application absolutely painless, but seems to bring the inflammatory process to an early ending without interfering with the therapeutic action.

PASSAGE of an open knife along the intestinal canal is reported by Dr. C. B. Hutchings, in the *Pacific Medical Journal*, January. After swallowing the knife he was fed on solid food. In six days afterwards the knife came away with "an immense" evacuation of the bowels. The knife, with open blade, measured $3\frac{1}{2}$ inches.

THE operation for cleft palate (*London Lancet*) is made much easier and safer by allowing the head to hang over the operating table in the fully extended position, thus making the roof of the mouth horizontal or slightly inclined downward towards the operator. The anesthetic is given through the nose by a small tube. Obscuring, annoying and dangerous hæmorrhage is avoided.

REMARKABLE surgical success in the British army is reported by Surgeon R. F. Tobin, who served the expedition to Suskin. He thinks that all will agree with him that 97 per cent. of the wounded were saved, and this, too, in a country where there were difficulties of climate and of transportation, and a bad septic condition implied by flies that made black by their presence every spot where they could obtain food.

The American Practitioner and News is the name of the new bi-weekly journal representing the consolidated journals included in the title. Dr. D. W. Yandell, formerly of the *Practitioner*, and Dr. H. A. Catlett, of the *News*, preside over its destinies. If the new journal succeeds in maintaining the strength of the publications from which it sprang, it will be a living force in the profession, and we have every reason to believe it will do even more.

DIFFERENTIAL DETECTION BETWEEN MORPHINE AND PSEUDO-MORPHINE—Detection of small quantities of morphine in the liver and brain is difficult, by reason of the presence of another alkaloid very closely resembling it. When a drop of dilute morphine solution mixed with a drop of cold-prepared *minium* in *glacial acetic acid* is evaporated at a gentle heat, there remains a yellow residue, the color of which changes through orange to violet, and finally becomes dull and indistinct. The new base—pseudo-morphine above referred to—similarly treated yields an unalterable yellow residue.—*Watts*.

PAINLESS reduction of dislocation of the shoulder has been done by Dr. Neil Macleod (*British Medical Journal*), by extending the arm at right angles with the trunk, placing the foot in the axilla, and making gentle traction on the arm straight out from the trunk, using a force of from five to ten pounds. The reduction is accomplished without a jerk, and painlessly. Compared with the heel-in-the-axilla plan, with traction exerted downwards (subglenoid

dislocation), in which cases the deltoid is partly torn at its insertion, it promises better results.

TREATMENT OF ACUTE PROSTATITIS WITH VERY HOT WATER.—The singular though incontestable experience that in many inflammatory processes both heat and cold, though agents with diametrically opposed properties, possess often equal curative virtues, finds an apt illustration in the affections of the genital organs. In orchitis, for example, the ice-treatment enjoys great repute. In prostatitis, however, better results have been obtained with hot water. The hot water is applied by means of compresses to the perineum and by rectal injections.—*Therapeutic Gazette*.

STROPHANTHUS, which was mentioned in a former JOURNAL as a rival of digitalis, has had further recent endorsement from the pen of Dr. J. L. Porteous (*British Medical Journal*), confirming the opinion of Prof. Thomas Fraser, of Edinburgh. He finds that *strophanthus* decidedly increases the flow of wine, produces sweating and relaxes the bowels. It makes the pulse firmer, raising it for a short time after it has been taken. If carefully used, Dr. Porteous believes it is destined to hold a foremost place among our remedies for controlling the heart's actions, but, like other remedies, will not suit every patient.

THE SOURCE OF UREA IN THE LIVER.—A pathological illustration of a physiological theory is given by Dr. D. W. Aitken, in the *British Medical Journal*, February 6. The case is that of a boy who had received a blow upon the right lobe of the liver. He had symptoms of pain, jaundice, pale stools, bile-colored urine, no fever. The urine was highly alkaline. On the addition of nitric acid such violent effervescence ensued as to force froth out of the test-tube, although the urine was not much more than one inch deep. A chemist found that the alkalinity was due to carbonate of ammonia, and there was only 3 per cent. of urea. This evidence seems to Dr. Aitken to point strongly to the liver "as the seat of producing urea." Dr. Graves has already reported several cases of absence of urea which he believed to be represented in the urine by ammonium carbonate, but here we have the history of the organ involved.

OBITUARY.

PROF. ALFRED C. POST.

The Medical Department of the University of the City of New York, which but a few years ago was called upon to bear the loss of Prof. Draper, has been visited with a fresh calamity in the death of Dr. Post, its President and its emeritus professor of clinical surgery. In his death, not only the University, but the profession of medicine at large, has met with a most serious loss. He died on Sunday, the 7th inst., after a short illness, of cystitis.

Alfred Charles Post, M.D., LL.D., the son of Joel and Elizabeth (Browne) Post, was born in New York January 13, 1806; at the time of his death, therefore, he had just entered upon his eighty-first year. He received his general education at Columbia College and, having studied with his uncle, Dr. Wright Post, took his medical degree at the College of Physicians and Surgeons in 1827. After having served a term on the house staff of the New York Hospital, he established himself in practice in New York in 1829. In 1835 he moved to Brooklyn, but returned to New York at the end of two years. From 1831 to 1835 he was demonstrator of anatomy in the College of Physicians and Surgeons. From 1836 to 1852 he served as attending surgeon to the New York Hospital, and since 1852 he had been one of the consulting surgeons to that institution. From 1851 to 1875 he was professor of surgery in the medical Department of the University of the City of New York, and from 1873 to 1875, respectively, until his death, he was President of the Faculty and emeritus professor of clinical surgery. He was one of the surgeons to the Presbyterian Hospital, and one of the consulting surgeons to St. Louis and the Woman's Hospitals. He was a member of the Medical Society of the State of New York, of the Medical Society of the County of New York, of the New York Academy of Medicine, of the New York Pathological Society, of the New York Physicians' Mutual Aid Association, of the Society for the Relief of the Widows and Orphans of Medical Men, of the New York Medical and Surgical Society, and of the New York Surgical Society. He was also an honorary member of various medical societies in other parts of the country and in foreign countries. He had been President of the New York Academy of Medicine and a vice-president of the American Medical Association.

In all these capacities, and under all circumstances, Dr. Post showed himself an accomplished practitioner and a scrupulously conscientious man. As a teacher of surgery, he was remarkable for comprehensiveness and precision of statement. He was a frequent speaker at the meetings of medical societies, and occasionally made short contributions to periodical medical literature. For the last few years of his life he paid particular attention to plastic surgery.

During the war between the States he made a long tour of observation among the military hospitals, and, as a result of what he saw at that time, he introduced into the hospitals of New York the practice of applying bromine in cases of hospital gangrene. He was a devoted Christian, a man of simple and unpretentious piety. He was revered by his pupils and respected by all his professional brethren. It is not too much to say that the medical men of New York are the better for so many years of the daily example of his blameless life. His funeral, which took place on Wednesday, was attended by large delegations from the Academy of Medicine and the Medical Society of the County of New York.—*New York Medical Journal*.

BOOKS AND PAMPHLETS RECEIVED.

Nephrolithotomy, by L. McLane Tiffany.

Hydr-naphthol ; a New Antiseptic, by George R. Fowler.

Electricity in Medicine, by Ambrose L. Ranney, M.D. D. Appleton & Co.

Joint Diseases ; Treatment by Rest and Fixation, by De F. Willard, M.D.

The Respiratory Functions of the Human Larynx, by Franklin H. Hooper, M.D.

Essentials of the Physical Diagnosis of the Thoracic Diseases, by E. Darwin Hudson, jr., A.M., M.D.

The Diagnosis and Treatment of Diseases of the Ear, by Oren D. Pomeroy, M.D. D. Appleton & Co.

Local Anæsthesia in General Medicine and Surgery, by J. Leonard Corning, M.D. D. Appleton & Co.

The Clinical Treatment of Disease ; Western North Carolina as a Health Resort, by Henry O. Marcy, A.M., M.D.

Puerperal Convalescence and the Diseases of the Puerperal Period, by Joseph Kucher, M.D. J. H. Vail & Co.

Diphtheria and its Management, by Joseph E. Winters, M.D.

Experimental and Clinical Study of Air-Embolism, by M. Senn, M.D.

A Case of Psycho-Sensory (Affective or Moral) Insanity, by C. H. Hughes, M.D.

Exenteration of the Eyes; A Substitute for Enucleation, by Middleton Michel, M.D.

Physiology and Hygiene in the Schools of the State (Louisiana), by Stanford E. Chaillé, A.M., M.D.

Insanity and Divorce, and other abstracts from the *Alienist and Neurologist*, by C. H. Hughes, M.D.

Necrosis of the Frontal Bone following Inflammation of the Frontal Sinus, by S. T. Armstrong, M.D., Ph.D.

The Climate of South Central Florida, especially for the Pulmonary Diseases of Women and Children, by J. M. Keating, M.D.



The *New Orleans Medical and Surgical Journal*, after very studiously weighing the 650-page book of Freire, on the preventive inoculation for yellow fever, found no evidence of the truth of his declarations. We feel quite safe in trusting this opinion upon the general principle that the scientific methods of the Spaniards and Portugese have not been worthy of credit heretofore. We are sorry that there is no good foundation for the establishment of a Commission to investigate the pretended successes of Freire, as suggested by Dr. Holt. We *do* commend the zeal and ardor and general accuracy of Dr. Holt's work as a leader in practical sanitary affairs.

At time of writing editorial on Wilmington City Hospital we were unable to ascertain exact cost of each day of relief (p. 110, 6th line from top). We have since found it to be a fraction less than 47 cts.

READING NOTICES.

(Extract from June number of the "*Medical Brief*.")

"Nothing can be devised that will answer the purposes for which intended more thoroughly than Mellier's Standard Saddle-Bags and Buggy-Cases."

—(o)—

Mr. Chamberlain :—Dear Sir :—I am very much pleased with the Water Closet Seat. I think it a great invention, and yet so simple in its construction. I have been a long sufferer, and can well appreciate the beneficial results of the use of this Seat. Wishing that you may meet with the success that you so well deserve,

I am yours, respectfully,

Greenville, N. C.

SAMUEL M. SCHULTZ.

—(o)—

PILES.—I can speak positively of the great value of Kennedy's Extract *Pinus Canadensis*; I have been treating a case of protruding piles of twenty years standing, making life almost intolerable at times; they have been treated for years with only palliative results; about a year ago an operation was submitted to, since which time the tumors have remained smaller and less sensitive, but a new trouble soon set in, namely, itching to a terrible extent, which nothing seemed to relieve until I tried the Extract *Canadensis*—two parts to one of glycerine—two or three applications of which relieved the itching entirely, and the disease is being rapidly benefited in every way. Have used it only once a day after each evacuation. I find it an excellent remedy in leucorrhea also.

Yours, very truly,

C. H. DAVIS, M.D.

Funkhannock, Pa., July 30, 1885.

NORTH CAROLINA MEDICAL JOURNAL.

THOMAS F. WOOD, M. D., Editor.

Number 3. Wilmington, March, 1886. Vol. 17.

ORIGINAL COMMUNICATIONS.

THE TREATMENT OF ULCER AND CANCER OF THE STOMACH.

By Prof. DUJARDIN-BEAUMETZ. Translated by Dr. E. P. HURD,
Newburyport, Mass.

Summary :

Symptoms—Pharmaceutical Treatment—Nitrate of Silver—Perchloride of Iron—Bismuth—Chloral—Opiates—Lavage—Dietetic Treatment—Milk Diet—Cancer of the Stomach—Difficulties of Diagnosis—Treatment—By Lavage—Therapeutic Indications According to Seat of the Cancer—Surgical Intervention in Cancer of the Stomach—Gastrotomy—Gastrectomy—Gastostomy.

The lengthy developments into which I have entered in the previous part of my work pertaining to the dyspepsias proper, will oblige me to be much more brief in the therapeutic considerations which I am about to present relative to simple ulcer and cancer of the stomach. You know that these affections are characterized by

symptomatic dyspeptic troubles, and that the treatment of these symptoms is the same as that of the different dyspepsias studied in the foregoing chapters. Hence I shall here set forth only the more important points in the therapeutics of these two affections.

ULCER OF THE STOMACH.

Let us begin with ulcer of the stomach. Notwithstanding the numerous works on the subject of simple ulcer of this organ since the time of Cruveilhier we are still ignorant of the exact patho-

follows. Vomiting, due to the opening of more or less important blood-vessels; attacks of pain, sometimes very severe; on the other hand, perforation of the walls of the stomach and the fatal consequences that result therefrom. Such are the three principal points in the pathological history of ulcer. Add to this brief description that the ulcer, if it may cause death, is likewise susceptible of cure, and this in one-half the cases.*

What can the physician do to alleviate these symptoms and hasten cicatrization of the ulcer? He can employ both a pharmaceutical and a dietetic treatment; and, although the latter constitutes the best, and perhaps the only, means of cure, permit me, first of all, rapidly to set forth the pharmaceutical means of which you may make use. Two ends are to be accomplished; one set of remedies acts locally on the ulcer to bring about its cicatrization; another set is given principally to combat the pain which is so characteristic a symptom.

Nitrate of Silver.—The local modifiers are the most numerous, and the first place must be assigned to the salts of silver, and particularly the nitrate. Struck by the good effects produced by cauterizations effected with lunar caustic on cutaneous ulcers, some medical authorities have supposed that this salt might modify advantageously the surface of the gastric ulcer and bring about cica-

*In Brinton's 100 cases there was cicatrization in 56, perforation in 12, 4 died of hæmorrhage, 2 of consumption and 25 of undetermined causes.

trization ; hence it is that we see Trousseau, Gros, Schützenberger and others recommend the usage of pills of nitrate of silver of one centigram, the dose of which is progressively raised until ten pills a day are taken. Fleming has even gone further and advised to inject a solution of nitrate of silver directly into the stomach by means of the œsophageal sound.*

I am quite of Brinton's opinion with regard to this treatment by the silver salts. Brinton believes this medication to be quite inefficacious, and affirms that if he has observed patients to get well while taking nitrate of silver, it was simply because they were on the milk diet at the same time, which is known to be of itself curative. Moreover, it is difficult to limit the action of nitrate of silver to the surface of the ulcer.

Perchloride of Iron.—Luton, basing himself on the good results obtained in the treatment of ulcers of bad nature by the profoundly modifying action of perchloride of iron, has counselled this medication in round ulcer of the stomach. He administers three or four times a day ten drops of the tincture of perchloride of iron in a little sweetened water.

Bismuth.—For the same reason Bonnemaïson, of Toulouse, has recommended the subnitrate of bismuth in large doses. He has himself been in the habit of giving two to three ounces of this medicament during the twenty-four hours.†

I shall only mention sulphate of iron, proposed by Abercrombie and the strong-scented lettuce (*lactuca virosa*), which Cazin, of Boulogne, has administered in these cases : and I come now to the

*Trousseau, "Clinical Medicine," Vol. II. ; Gros, *Union Med.*, 1857 ; Schützenberger, *Gaz. Med. de Strasbourg*, 1856 ; Fleming, "A New Mode of Treating Severe Dyspepsias and Chronic Inflammation of the Stomach," *Med. Times and Gazette*, 1859.

†This was in accordance with the important labors of Monneret. vide Bonnemaïson, "On the Treatment of Simple Ulcer of the Stomach," Toulouse, 1874 ; Luton, *Nouveau Dict., de Med. et Chir. Art. estomac* ; Luton, "On Ulcer of the Stomach," *Bull. de la Soc. Med. d'Observation*, 1858 ; Hertzka, *Bull. de Therap.*, t. XCIV., p. 193, 1878.

ation of chloral in the treatment of ulcerations of bad nature. Unfortunately chloral is itself an irritant, and I have already told you that its prolonged use is a cause of catarrhal inflammation of the stomach; for this reason this medication in many cases cannot be counselled. And what I say of chloral also applies to all the irritant local modifiers which have been advised in the treatment of simple ulcer of the stomach.

Opiates.—Be, then, very reserved in the employment of these topical modifiers; you can be less so in the usage of opiate preparations which attain a triple end; they combat the painful paroxysms which are often so violent in the course of the disease; they allay vomiting, and they subdue the sensation of hunger, and thus enable us to keep the patient fasting for sometime.

Brinton, and more recently Gallard,* have shown the good effects of opiates. You can prescribe the English "black drops," or the French "white drops," or pulverulent mixtures of morphine with inert powders, of which I spoke to you when on the neuroses of the stomach. But the hypodermic method is assuredly the best means of introduction of morphine, being the least irritating to the stomach. We have also seen advised, in order to combat the pain and vomiting, the employment of energetic revulsions: vesicatories, issues, the actual canter, etc. I think that one ought to be very chary in the employment of these means, the favorable action of which, moreover, is not absolutely demonstrated. For the vomiting and the hæmatemesis, make use of ice, and the different means which I mentioned under the head of vomiting. I cannot too much insist on the benefits of ice used internally and applied in the form of ice-bags to the epigastrium.

Quite different is the end proposed by Debove in the treatment of ulcer of the stomach. Basing himself on the fact that ulcerations of the stomach are aggravated by the secretion of gastric juice, it occurred to Debove to employ in the treatment of *ulcus rotundum* the alkalis in large doses, as these substances have for their end to neutralize completely the acidity of the gastric juice, and thus compel the alimentary bolus to be digested in the intestines. Cases of cure by this therapeutic method are as yet too few

*Gallard, "Du Traitement de l'Ulcere Simple de l'Estomac," *Bull. de Therap.*, t., XCII., 1877.

to enable us to judge of its value, but one may well ask if the introduction of a great quantity of alkaline salts into the economy (an ounce or more a day) may not do serious harm?

Lavage.—But before touching upon the dietetic regimen, which constitutes the most active mode of treatment of simple ulcer of the stomach, we must discuss the value of lavage of the stomach in the therapeutics of this affection. Here we meet with two quite opposite opinions; some authorities thinking that the practice of lavage in simple ulcer of the stomach is highly beneficial, affirming that by this means cicatrization of the ulcerated mucous membrane is favored, others absolutely condemning this practice because that, in their view, it excites contraction of the stomach, and favors hæmorrhages by the movements which it imposes on the ulcerated surface.

I believe, for my part, that the truth lies between these extreme opinions, and that lavage, at certain periods of ulcer of the stomach, may give good results, while at other times it may be injurious. I will explain: When the ulceration is just beginning, and no hæmorrhage has as yet taken place, and there only exists the extreme pain complicated with vomiting, one may usefully perform lavage, and especially if use is made of the milk of bismuth, of which I have before spoken.

It is especially in the terminal periods of the ulcer, when cicatrization is going on and the hæmorrhages have ceased, that lavage may render great service. By such cleansing of the mucous membrane and the surface of the ulcer, you prevent the sojourn of alimentary particles, which by their presence hinder cicatrization and irritate the surface of the ulcer. And just as we see ulcerous wounds of the skin get well under the influence of lavages or dressings often repeated, so also the ulcerations of the mucous membrane of the stomach undergo favorable modifications by the same means.

But lavage becomes dangerous when performed immediately after hæmatemesis. It is then to be feared that by this means one may provoke new vomitings of blood, whether by detaching too promptly the occluding clots, or by provoking new contractions of the stomach. For several years I have repeatedly practiced lavage of the stomach in cases of ulcer, and I have always derived advantage from it when I have followed the rules here laid down.

I might particularize cases where the result has been truly mar-

vellous—instances, in all probability, of the nature of those ulcerous gastrites which are still poorly understood from the point of view of their pathological anatomy, and characterized by absence of those deep ulcers which cut the different layers of the stomach like a punch—cases, in fact, where the lesion consists in simple erosions of the mucous membrane, accompanied with but little hæmetemesis, and where the presence of blood is indicated only by a slightly darkish discoloration of the vomited matters.

Lavage of the stomach has also other advantage, in that it enables us to feed the patient. In fact, by means of the syphon, after having cleansed and dressed the mucous membrane of the stomach, you can introduce a certain amount of milk, and if you fear the injurious effects of too large a quantity, you can make use of a mixture of milk and milk powder, such as Debove uses, for by so doing you can considerably augment the nutritive value of the milk and avoid the inconvenience of too great a bulk.

The Dietetic Regimen.—But let us return to the hygienic treatment. As I have already said, the dietetic regimen deserves the first place, and Cruveilhier made a good completion to his discovery when, after having shown the evil and its march, he pointed out the remedy with which to meet it. This remedy is milk; it is necessary to support the patient while giving the stomach the least possible work to do, and milk well fills this indication. The milk diet, then, is absolutely indispensable, and all authorities, Schützenberger, Brinton, Wade, Leube, etc., are unanimous on this point.*

Milk Diet.—It is here that the milk treatment ought to be most vigorously followed out, and you must take the utmost pains in your directions. Karell, of St. Peterburg, says, "I have seen that the physician ought not to limit the quantity of milk, as much as you can, and to give the patient the quantity, the kind of milk, and the hours at which it shall be ingested. You will then order your patient to take, four times a day, at carefully prescribed periods, from two to six ounces of milk. If he cannot take this quantity all at once, follow the advice of Gallard, and give it to him in small quantities at a time, even if

*Wade, "On the Treatment of Simple Ulcer of the Stomach," *Brit. Med. Jour.* 1859. Leube, in Ziemssen, Brinton, "On the Pathology, Symptoms and Treatment of Simple Ulcer of the Stomach," London, 1857.

he has to get his cupful down by slow sips. Karell* counsels skim milk; for my part I prefer the milk fresh from the cow. You can add lime-water to it or alkalies. Luca, of Naples, pretends that lime-water is the unique remedy in ulcer of the stomach. These substances have no great efficacy; they simply favor the regular and speedy digestion of the milk.

It is necessary to be very careful in the return to solid food, and this transition will be facilitated by the use of the alimentary powders. What we must avoid, I have said, is to impose too arduous a task on the stomach, and we can accomplish our end by employing the most easily digested articles on account of their rapid peptonization. Then, if the patient is not too debilitated, the mucous membrane of the stomach will have succeeded in easily digesting these alimentary powders incorporated in beef tea, you will be able to return gradually to ordinary fare, beginning, of course, with articles of food most easy of digestion, and you will do well to take as your guide the directions which I have given you in previous chapters on the diet in dyspepsias, having due regard to the likes and dislikes of your patient.

There is a last point on which Brinton insists, which is to recommend rest and to forbid violent exercise. You understand well the value of this prohibition; its object is to avoid perforation of the stomach, and to favor the protecting adhesions which prevent such perforation from opening into the peritoneal cavity. The same reason should make us careful about examining the region of the stomach in persons affected with ulcer, for under the influence of pressure the adhesions may give way and grave hæmorrhage or fatal peritonitis result.

Treatment of Hæmatemesis.—These hæmatemeses, which are one of the characteristics of simple ulcer of the stomach, merit a particular treatment. When they are not very abundant, ice, perchloride of iron, and especially subcutaneous injections of ergotine (or ergotinine in the dose of 1-120 to 1-60 of a grain) suffice to arrest them. In other cases, on the contrary, the hæmorrhage takes on an alarming character; sometimes it is so copious as to cause the death of the patient; sometimes it is so often repeated that death supervenes as the result of gradual and increasing exhaustion. In the

*Karell, "On the Milk Treatment," *Arch. gen. de Med.*, 1866.

event of profuse hæmorrhages, we can do little ; the ulcer, in fact, has invaded one of the important branches of the coeliac axis, and the loss of blood is enormous. In the case of more moderate, repeated hæmorrhages, entailing exhaustion, we can interfere advantageously with transfusion, which fulfils several indications, acting as a hæmostatic and sustaining the patient at the same time that it spares the stomach ; it also raises the pulse and the action of the heart.

In a case of ulcer of the stomach where, by reason of repeated and abundant hæmorrhages, the patient, then pale, cold, with imperceptible pulse, was brought to death's door, I have been able by means of a transfusion of five ounces of blood, effected with the apparatus of Roussel, and with his aid, to bring back the patient to life, and (which is better) to health, his hæmorrhages ceasing from that moment.*

Transfusion, then, is a means which it will not do to neglect in such cases, and you should always resort to it, taking care not to inject too great a quantity, not more, for instance, than 150 gms. (five ounces), for when you exceed this amount you produce a plethora of the arterial system which may lead to a giving way of the arterial clot, or even the rupture of other blood-vessels in the vicinity, and a return of the hæmorrhage. It is well understood that while the hæmatemesis is going on you should avoid the introduction of food into the stomach, and, in order to sustain your patient, you will have to make use exclusively of the rectum and employ peptonized lavements.

Such, gentlemen, are the therapeutic rules which should preside over the treatment of ulcer of the stomach ; let us now take up the study of

CANCER OF THE STOMACH.†

Heredity seems exceptional, according to Lebert, in cancer of the stomach, and women are more liable to this disease than men.

*Roussel, "Transfusion," *Prog. Med.*, 1884.

†Cancer of the stomach is the most frequent of cancers. According to Verchow the ratio of cancer of the stomach to cancer elsewhere, is as 34.9 to 100. According to Wynn it is very nearly the same, 35.6 per 100. According to Espine and Lebert cancer of the stomach is rare before the age of 30 (1 per cent.), as also after the age of 70 (4 per cent.) ; it is frequent from the age of 31 to 70 (34.6 per 100). This frequency attains its maximum from 41 to 60 (60.7 per 100).

Chesmel has studied the clinical forms of cancer of the stomach; he has shown that truly latent cancer is rare, as he was able to collate only six cases. The dyspeptic form is much the most frequent, and the dyspeptic presents only gastric troubles. In fine, in other cases, cancer of the stomach takes different forms; it may simulate Bright's disease (dropsical form), tuberculosis (thoracic form), a disease of the heart (cardiac form).*

Cancer of the stomach, despite its incurability, should be made the subject of special therapeutic indications, and this for many reasons; first, because we ought to treat incurable diseases like those that are curable, and if the physician cannot cure in all cases, he is always in duty bound to do his utmost to alleviate the pains of the patient. The other dominant reason is that the diagnosis of cancer of the stomach is one of the most difficult problems of clinical medicine, and one may affirm that if exception be made of the presence of an appreciable tumor of this organ, there exist no positive signs of cancer of the stomach.

False Cancers.—That would be a curious chapter of internal pathology which would give the history of false cancers of the stomach. In a communication to the Medical Society of the Hospitals I have shown all the difficulties of this clinical problem, and you will find in the thesis of my pupil, Dr. Deschamps, a complete study of this, so much controverted, question of cancer of the stomach.

Diagnosis of Cancer.—There is, in fact, a disease, the recent knowledge of which has profoundly modified the very basis of this diagnosis. I allude to chronic gastritis with dilatation of the stomach. This affection, on which we find the stomach dilated with notable thickening of its walls, is accompanied with symptoms almost identical with cancer: the age of the patient, his cachectic state, the vomitings, the hæmatemeses, the pain in the region of the stomach—all, unless it be the absence of the tumor, suggest cancer of the stomach, and even the tumor itself may not be wanting. The thickening of the walls of the stomach, or even the peristaltic contractions which this organ undergoes, give to the hand of the explorer a sensation of

*Dujardin-Beaumetz. "On the Diagnosis of Cancer of the Stomach," Soc. Med. des Hosp. July 25th, 1884; Louis Deschamps, "On the Diagnosis of Cancer of the Stomach." These de Paris, 1884; Lebert, Arch., f., Klin. Med. 1877; Ferd. Chesmel, "Clinical Study in Cancer of the Stomach; Inaugural Thesis," Paris, 1877.

well defined hardness, surprisingly like that of a real tumor. In the presence of such difficulties of diagnosis, several means of extrication from this embarrassment have been proposed, and I wish to call your attention to two of them.

Rommelære, of Brussels, has maintained that the diagnosis of cancer of the stomach may be made certain by the examination of the quantity of urea excreted in twenty-four hours. Whenever the figure is below ten grammes (150 grains), and this lasts for several consecutive days, you may affirm that you have to do with a malignant affection of the stomach. Rommelære affirms, in fact, that the malignity of tumors in general is characterized by a vitiation of the intimate nutrition, and that this vitiation is not met with in benignant tumors.

I have put in practice the method of Rommelære in my service, and the results to which I have arrived justify, in part, the affirmation of the Belgian physician, in so far that in cases of cancer of the stomach, or presumably such, we have always found the proportion of urea excreted in twenty-four hours less than ten grammes, while on the contrary, in cases of ulcer of the stomach, or of dyspepsia with dilatation, this figure of ten grammes has always been exceeded.

At the same time it will not do to conclude that the test of Rommelære is infallible; in one case, in fact, where we found all the symptoms of cancer of the liver and stomach, and where the figure of urea had not exceeded three or four grammes a day, which enabled us to affirm the diagnosis of cancer. The autopsy revealed a hydatid cyst of the liver, with greatly thickened walls.

I think, then, that Rommelære's method, while sometimes furnishing us suggestive information, cannot give us definite indications, for, as our colleague, Albert Robin, has well shown, the figure of urea may vary in a cancerous individual according to the period of the disease when he is examined. At the outset, when the diagnosis is often most difficult, if alimentation is still well performed, the figure of urea may be relatively considerable, while in the cachectic periods it is extremely small.* Use then the test, but do not place too high a value on it.

*Rommelære has examined the quantity of urea eliminated in the twenty-four hours in cases of cancer, of simple ulcers, and of dyspepsias of the stomach. These are his results: In eight cases of cancer of the stomach the quantity of urea varied between six and eleven grammes, with an average of nine grammes. In the cases where the cancer had invaded at the same time the liver and the stomach,

Dujardin Beaumetz, in his service, arrived at the following results:

Probable Cancers.

Names of Patient.	Duration of Observations.	Mean of Urea.
Auguste D.,	9 days.	6 gms.
Pierre D.,	10 "	7 "
Louise G.,	10 "	4 "
Macellin, T.,	5 "	5 "

Ulcerous Gastrites.

Joseph B.,	19 days.	35 gms.
Emile D.,	5 "	20 "
A— B.,	5 "	22 "
Isidore J.,	15 "	24 "
Nellie F.,	7 "	26 "

But one observation of ulcer of the stomach was taken; in this case the average quantity per diem for five days was twenty grammes.

Albert Robin opposes this way of looking at the subject. According to him, the figure of urea is in direct relation with the state of nutrition, and when the latter is enfeebled, from whatever cause, the proportion of the urea diminishes. Thus it is that he has found in individuals who take very little nourishment a very small proportion of urea, while, on the contrary, the amount is considerable in patients affected with malignant tumor, but able to take food. All depends, then, on the period when one analyzes the urine.*

In Germany it has been proposed to base the diagnosis on signs drawn directly from the stomachal digestion, and two orders of signs have been especially invoked: the presence or absence of acidity of

there was an average of ten grammes; in cases of cancer of the liver, the average was eight grammes; while in cancer of the uterus the average was 9.29 grammes. In examining comparatively patients affected with dyspepsia and with simple ulcer of the stomach, he found, on the contrary, a figure varying between eleven and thirty-five grammes.

*Leube, "On Gastro Ectasis, and its Relations with the Presence or Absence of Free Hydrochloric Acid in the Gastric Juice," *Deutsch Arch. f. Klin. Med.*, XXIII, 4; Rommelère, "On the Diagnosis of Cancer," 1883, in *Ann. de l'Université Libre de Bruxelles*, etc., etc.; Dujardin Beaumetz, "On the Diagnosis of Cancer of the Stomach," *Gaz. Hebd.*, July, 1884; A. Robin, "On the Diminution in the Figure of Urea as Diagnostic Sign of Malignant Tumors," *Soc. Med des Hop.*, August, 1884; Deschamps. Loc. Cit.

the gastric juice, and the digestibility or the non-digestibility of certain aliments.

As for the diagnostic value of the acidity of the gastric juice, Leube, basing himself on the results obtained by Vanden Velden, who pretends that as soon as a neoplasm is developed in the walls of the stomach, the hydrochloric acid of the gastric juice disappears from that secretion, Leube, I say, has sought by the same methods which I have already described to you under the head of pituitous dyspepsia, to ascertain the degree of the acidity of the gastric juice.

As concerning the diagnostic value of the digestibility of aliments, this same physiologist, in comparing the rate of digestion in cases under consideration, with artificial digestions made concurrently, has drawn up a list of foods whose rate of digestibility enables one to determine the diagnosis of the affection of the stomach which one has before him; you will find, moreover, in the thesis which I have just cited, that of my pupil, Dr. Deschamps, of Riom, all the details pertaining to this method of diagnosis. I have repeated these experiments, and I recognize the fact that in certain circumstances these methods may add confirmation to other signs, while having only a relative value by themselves; hence it is that we see Leube associate them with other clinical data, and base his diagnosis solely on the sum of signs observed.*

I have elsewhere made a communication to the Medical Society of the Hospitals *apropos* of this subject, and have shown all the uncertainties of the process recommended by Leube.†

*Leube employs the stomach sound for the diagnosis of gastric affections, and he studies by this means two points: (1) The duration of the digestion. (2) The intensity of the secretion of gastric juice. (1) To ascertain the duration of the digestion, he performs lavage seven hours after the meal; in a person who digests well, the water of the lavage ought to return clear, without admixture of mucus. (2) To judge of the intensity of the secretion of gastric juice, he determines the acidity of the gastric juice and its digestive power. To obtain gastric juice, he introduces a litre of liquid at 0° C. into the stomach, then he removes it ten minutes after; this is the liquid with which he experiments. To judge of the acidity of the gastric juice, he makes use of the test of tropœline. To test digestion, he immerses little portions of albumen in the liquid, and the complete solution of this albumen is regarded as determining the duration of the digestion. All grave dyspepsias are characterized by slowness of digestion.

†Dujardin Beaumetz, "On the Diagnostic Value of the Clinical Processes Employed to Test the Acidity of the Gastric Juice," *Gaz. Hebdomadaire*, Dec. 6, 1884.

Pardon me this long digression on the diagnosis of cancer and other affections of the stomach, but it had become necessary that I should enter thus minutely into these clinical details, in order that you might be able intelligently to treat cancer of the stomach when you meet it, as well as all doubtful cases that simulate cancer.

Admitting that you may arrive at a precise diagnosis of cancer of the stomach, the prognosis is different according as the cancer is seated in this or in that part of the stomach. One patient, for instance, shall have a malignant growth of trifling extent which is situated about the pylorus or cardia, and life is soon compromised, owing to the interruption of alimentation; and then, on the contrary, may live a long time with cancerous lesions of much greater extent, which invade portions of the stomach less necessary for digestion. This is not all; the variety of cancer has also an influence; certain neoplasms develop with extraordinary rapidity, and I have seen patients go through all the phases of their disease and succumb in a space of from one to two months, while others, on the contrary, live for years with cancerous lesions of the stomach whose progress is very slow.

These are, you see, clinical points of the utmost importance, and which you should always have in mind when you are in the presence of a man affected, or supposed to be affected, with cancer of the stomach.

(To be concluded in April number.)

MODE OF ADMINISTERING QUININE AND MERCURY.

By W. J. H. BELLAMY, M.D., Wilmington, N. C.

(Read before the New Hanover County Medical Society, February 10, 1886.)

In the whole domain of the science and art of medicine, I know of no subject that is pregnant with more importance to the general or special practitioner than the administration of medicines. To know the etiology and character of diseases—to diagnosticate

correctly, presupposes a vast knowledge of the sub-structure, the ground-work of medicine; and without this knowledge the super-structure is but a frail affair, and the practitioner under these circumstances only a superficial gleaner of facts—an unreliable helper in time of trouble.

It has been said of the eminent therapist, Dr. George B. Word, when he would hear a physician express himself as lacking faith in the efficacy of medicines, his reply was that "this lack of faith must rest upon the physician not having used drugs properly, because the results to be achieved by the proper use of remedial measures are so apparent that they can be seen at once."

In an active practice of eighteen years, I have found so many difficulties in the treatment of such diseased conditions as call for the administration of quinine and mercury, and have so often been led, in consequence of disappointments in getting the proper remedial effect of these agents, to investigate as thoroughly and clearly as the time usually afforded a busy practitioner in a community like ours, would allow. So then, with this object in view for a long period of time, I trust that a few observations which I have made in this small portion of the sphere of therapeutics may be acceptable to you, and it may be worth my time and pains to prepare in a condensed way my views upon the administration of quinine and mercury. This, then, will be the subject of my paper this evening.

Throwing down "the reins to the imagination," and confronting the "hoe and pruning-knife of criticism," I advance the idea that fever is often allowed to run an unusually protracted course, because the all-important agents, quinine and mercury, are not correctly prescribed, are not judiciously administered. With these premises, as intimated, in the experience of your essayist, what are our deductions?

Bence Jones and Headland have taught that there exists in the bile a substance, chemically speaking, the same as quinia; that it is probable that marsh miasm robs the bile of this substance, and that the reason that quinia cures miasmatic fever is that it acts as a "restorative," giving the system a new supply of necessary material, temporarily absent from the effects of miasma. Why is there a distinct intermission, an almost fixed period of time, between the exacerbations of fever? Why is it the intermission can be fore-

told with accuracy? Is it reasonable that the taurine of the bile spends part of the time at home and the remaining portion in the rice-fields or in the low-grounds? My friends, we must look to some other theory of the *modus agendi* of quinine. In the first place, it has not been settled definitely in the minds of the profession as to what is the nature of fever.

If the old theory, as advanced by Traube, or the recent ideas from calimetric examinations made by Maragliano, with the aid of the hydroplethysmograph of Morso be tenable, then we must hold that in fever there is heat retention, and an increased heat production—as a result, an increased production of urea and carbonic acid gas.

Further, in fever, as the observations and critical inspection of Maragliano reveals:

1. A febrile temperature is preceded by a progressive contraction of the vessels of the skin.

2. During the height of contraction (when the vessels attain their minimum lumen) we find the climax of the febrile temperature.

3. The contraction persists, while the temperature is at its highest level.

Again: Under the influence of antipyretics, which seem to exert a double action. 1. They prevent vascular contraction and the consequent retention of animal heat and increase thermal discharge. 2. They reduce the intensity of the oxydizing processes of the economy, thus combatting increase of heat formation.

If these observations, then, prove that in fever there is a vascular contraction throughout this great organ, this wonderful expanse, the skin—necessarily, then, does the therapeutist employ such agents as have a tendency to dilate these vessels, enlarge their lumen and control the fever. Does quinine do this? Unquestionably, in my mind, it does. I have found that when this condition of affairs, as has been described with well-marked diaphoresis, makes manifest that through some agency the fever is controlled, that the stomach has retained and absorbed the medicine I have given, and, on the contrary, if the fever is not controlled and the condition described has not obtained, that the medicine has not entered the circulation, or has not made any impression upon the "*vires vitæ*" of the parts to which they have been applied—whether it be *per orem*, *per*

rectum, endermatically or hypodermatically. I cannot lay too much stress upon the form and time of administration, as well as the quantity of quinine to be given in a case of fever.

After the bowels have been well moved, in the very commencement of the treatment of a case of fever, with the submuriate of mercury, 10 grs., soda bicarbonate, 15 grs., followed by a good saline, and in the middle of the interim between the administration of the mercurial and the saline, I administer 10 grs. of the bisulphate of quinia, and at the time of administering the saline I give 10 grs. more, always preferring the powder, or cachet, or capsule to a pill—the last abominable form of giving quinine I have long since abandoned, believing, as I do, that there are to-day throughout the entire malarial sections of the South many a mound-covered body whose life might have been prolonged if this disease-arrester and great victor of fever had been prescribed in some form other than that of a pill. The excipients usually resorted to in making a pill, or the age of the pill renders it in many instances incapable of dissolution, absorption or digestion. Time and again the great indicator of the age, the sentinel on the tower, that great boon to the practitioner of to-day—the clinical thermometer—has warned us of terrible breakers ahead.

I remember a case occurring in my practice a few years ago in the person of a lovely girl of ten years, usually the picture of strength and beauty, where the usual treatment in a well-marked case of congestive remittent fever was being carried out, and when the remission which occurred about midnight was as well-marked as usual, and advantage was being taken of it, and quinine was being administered, that I was appalled to find at my 9 A. M. visit a temperature of 105° , which temperature I had been led to believe by past experience to mean, if not a fatal termination, at least a very narrow escape. I expressed my surprise to the intelligent mother, and asked that the last *fecal* discharge be shown. To my surprise I found that the great febrifuge was in the vessel, the pills, all in number, as round and firm as when administered.

In several cases, to which it would be easy to refer, the same thing has occurred, and it was made manifest to the attendants that the administration of quinine in pill form had retarded the cure of the disease. In our efforts to give quinine in such a way as to insure its proper suspension and to disguise its taste, we resort to such

vehicles as the Elixir Adjuvant, as suggested by Lewis Smith, or the elixir of *Yerbæ Santæ*. I oppose its administration in this way for several reasons. One is that its bitterness is lessened, and in this the virtue of quinine, to a great extent, depends. Do we not know that nearly all of the kindred agents, such as ilicin salicin, eupatorium, and many more which were used so extensively before and during our late civil war, are exceedingly bitter, and if they have been potent, as has been so strongly asserted, it is not unreasonable to suppose that their febrifuge properties depend somewhat upon their great bitterness. In the second place, a tannate of quinia is formed which, to a great extent, is insoluble. Do not treatises on toxicology tell us that tannic acid is an antidote to poisoning by vegetable alkaloids; that the tannate, comparatively speaking, an insoluble tannate, is formed, which either prevents or retards the absorption of the poison? And do we not want a rapid absorption of our febrifuge?

This, I contend, is one of the great objections to this method of administration of quinine. To sum up, I would suggest quinia per orem, either in acid solution or in powder, followed by acid draughts, or the bisulphate in capsules, or the powder in cachets; hypodermatically, or endermatically, or as an oleate by inunction, or by applying on absorbent lint, covered by oil silk, as advised in the "Ephemeris" of Squibb; and right here I will state that, after a number of capsules containing powdered sulphate of quinine had passed undissolved from one of my patients, I repaired to the store of one of our leading druggists, who, by the way, had filled the prescription, and with his aid several samples of empty capsules were thrown in water at the ordinary temperature, and we were surprised to find such a difference in solubility—some remaining undissolved an incredibly long time, while some dissolved very rapidly.

This, gentlemen, soon demonstrated to my mind that we were often deluded in the idea that medicine, because retained by the stomach, was necessarily absorbed, and should, if the proper agent has been described, have had some decided effect, where, on the contrary, there is continued, if not greater, suffering—certainly no amelioration of the patient's condition.

The effect of quinia is undoubtedly, to my mind, when administered for the cure of inter- and remittent fevers, a cumulative one,

and the only reason it is administered during an inter- or remission is because the effect is experienced at the time there would be a decided rise of temperature, with the usual increased urgency of the symptoms. To insure its rapid absorption in addition to the form of administration, as I think Manson advised, gruel or some light excitant to the gastric follicles should be administered about the same time, for, as has been suggested, without early and rapid absorption, we are often disappointed in the treatment of some of the severest forms of disease.

I had promised myself more than my opportunities have enabled me to perform, and would like to advance some ideas concerning the administration of mercury. I believe it is now conceded that, whether its *modus operandi* is well understood or not, calomel is par excellence the most important mercurial in malarial districts, and is seldom now-a-days given without the most satisfactory results being obtained. Its combination with soda, though, at first glance, would seem improper, and a chemical change might be feared, has proven to be, in the hands of our most successful practitioners, very satisfactory, and in the major number of instances its cholagogue and laxative effect all that could be desired.

In the treatment of syphilis, your essayist has had sufficient experience, he thinks, to prove to him the greater potency and efficiency in the administration of mercury in the form of bichloride, and thinks that it is better to give it in solution effected by the aid of alcohol. For some time I have thought that, as the action of mercury is that of a parasiticide, microbicide, or the like, instead of a catalytic, and hence coming nearer to being a specific, with these ideas, than it ever was before with the older theories of action, its administration in syphilis should be constant and frequent, as far as the interval between the doses is concerned; that with an increase in the symptoms of the disease there should be an increase in the dose and a shortening of the interval between the doses, and *vice versa*, with an amelioration of the symptoms the doses should be decreased and the interval increased.

I have thus hastily, and, I fear, in too cursory a manner, given you some of my ideas concerning two of the most important and most indispensable medicines in our materia medica. I trust that at some future day I may be granted a little more time and more latitude for the discussion of this subject; but during this very sickly and unusually busy season, I ask pardon for not doing more on this occasion.

OBSERVATIONS ON DIPHTHERIA.

By R. L. PAYNE, M.D., of Lexington, N. C.

Medical authorities very generally entertain the opinion that diphtheria is from its inception a systemic disease, and that the deposition of pseudo-membrane in the throat, or elsewhere, is only a local symptom, or sequence of the constitutional disturbance.

Having had an extensive experience in the treatment of the disease, I have for a long time been led to a contrary opinion, which I respectfully submit, as follows :

I believe that diphtheria is a disease of two stages, as distinct and well defined as are the primary and secondary fevers of small-pox.

1. A stage of invasion (coming on after exposure, either immediate or through the atmosphere) in which the contagious germs are deposited upon the mucous membrane or upon some abraded surface, and giving rise very soon after to the following symptoms : chilliness, followed by more or less fever, general malaise, pain in the head, back and limbs, loss of appetite, furred tongue, constipation or diarrhœa, soreness of throat and the formation of false membrane.

2. A state of putrid infection, in which putrefactive fermentation is set up in the membrane, septic matter is absorbed, the cervical glands become enlarged and the blood becomes poisoned. In other words, that diphtheria is in its incipency a local disease with general symptoms very analogous to those of ordinary tonsillitis, and that it does not become constitutional until the putrid products of the local lesion in the throat, nares or elsewhere have been taken into the general circulation.

In every case of diphtheria we have a local inflammation with the exudation of fibrinous matter, which breaks down the epithelial cells, infiltrates the submucous tissue and forms the diphtheritic membrane. This membrane is, or at least soon becomes, the habitat of swarms of micro-organisms, putrid decomposition quickly follows, septic matter is rapidly absorbed and the disease speedily becomes constitutional.

Green, in his work on pathology, says : "It is well known that the putrid decomposition of albuminous liquids is always associated with the presence in them of *bacteria* or their germs," and from this

and other facts Dr. Sanderson concludes that the "*agency of bacteria is essential for the production of the septic poison.*"

The septic poison is not generated in the body, that is, within the absorbent vessels, or upon any sound tissue, but in some nidus of micro-organisms, some local lesion, such as the diphtheretic patch affords, from which it is taken into the circulation, and of course the greater the amount absorbed the more potent becomes the toxæmia.

If the foregoing theory be true, it becomes apparent that if a patient with diphtheria is seen early in the attack, before putrefactive changes have taken place in the membrane, and such treatment is resorted to as will cause the patch to shrink and fall off, and will at the same time destroy the vitality of the micro-organisms, septic matter will not be formed, and consequently not absorbed, and the subject will go on to recovery as in a case of common sore throat.

But suppose, as very often happens, the patient is not seen early, and sepsis has already begun, still if such treatment is pursued and such local applications are made as will render the nest with its occupants inert, the further absorption of poisonous matter will be arrested, and the chances for the recovery of the patient very greatly enhanced. I have held and acted upon the above written opinions for a long time, and whether they be true or not, I am at least glad to know that Renshaw, Læffler, Oertel, Bartels and other modern investigators hold opinions pointing in the same direction.

Renshaw and Læffler tell us that the diphtheritic poison is due to living organisms, and Oertel and Bartels believe that the disease is at first local and afterwards becomes constitutional. Rossbach probably entertains a similar theory, because in recommending his new remedy, papayotin, he says: "Where it is employed in time, it will make tracheotomy superfluous and greatly lessen the mortality, as the membranes can be destroyed as rapidly as formed, and thus *further infection* (as proceeding from false membranes) of the system becomes impossible, and the *fever is averted.*"

Diphtheria prevails most frequently as an endemic disease, sometimes as an epidemic, and occasionally sporadic cases occur, as we sometimes meet with isolated cases of scarlet fever. Since the years 1861, 1862 and 1863, when it was prevalent to an alarming extent, and in most virulent form, all over this section of country, I have never for a moment doubted its contagious or infectious

nature ; and not very long after this I so declared before our State Society. In the October number of the *Richmond and Louisville Journal* of 1873 I gave what was to my mind conclusive proof of its contagiousness, and I could adduce numerous instances that have come under my observation since then to substantiate the same thing, but it is unnecessary to trouble the reader with them, since that point is now very generally conceded.

Beyond a question I contracted the disease from a patient who coughed while I was examining the throat and expelled a piece of membrane which lodged between my lips upon my teeth. Since that time I have certainly never doubted the infectious character of the disease, nor can I say that the experience gained there has enabled me to admire especially the heroism of those physicians who have been led by any circumstance to suck the matter from the tracheotomy tube which had become obstructed while in the throat of a diphtheritic patient, and whenever I attempt to reflect calmly and dispassionately upon such an act, the old Latin adage, "*Quem Deus vult perdere primum dementat*," presents itself to my mind and very effectually suppresses any feeble aspirations towards self-immolation in that particular way.

The sequels of diphtheria are very decidedly protean in character, especially those of nervous origin, and we can never tell while treating a case what particular trouble is going to follow. I have very often seen the slow convalescence attended by general debility, with marked feebleness of the heart and great nervous depression. Many are years in regaining their normal condition, and others remain valetudinarians always.

Paralysis of the voluntary, and very often of the involuntary, muscles is a common sequel. The muscles of the pharynx and velum pendulum palati are most frequently affected, giving rise to the "nasal twang," and the muscles of the tongue are sometimes paralyzed at the same time, so that the patient can neither speak nor swallow.

I have often seen them, when in every attempt to swallow, the fluid, or solid food taken was either ejected from the mouth or came back through the nose, and I know full well from personal experience the fatigue occasioned by deglutition and the extreme difficulty of articulation, which symptoms remained long weary months after

I was in all other respects well. I have known aphonia to persist for months after an attack of diphtheria.

Paralysis of the muscles of the face, and especially of the eye, causing myopia, presbyopia and strabismus a frequent sequels. Amaurosis, too, sometimes follows as a result of the disease. I do not remember to have seen paralysis of the muscles of the chest, resulting from diphtheria, but I have in many instances seen paralysis both of the superior and inferior extremities, sometimes complete, but oftener seeming only a want of co-ordination, which reminded the observer forcibly of the unsteady gait and irregular action of a case of locomotor-ataxia. Abscesses coming after diphtheria in different portions of the body, but more especially on the scalp, along the lymphatic glands of the neck, and within the external auditory meatus, are so frequently met with after the disease, that I am disposed to regard them as true sequels. Inflammation of the internal ear and eustachian tube often remain permanently after diphtheria.

In the treatment of the disease I am in the habit of prescribing calomel at the outset—say to a child four years old, three two-grain doses, one to be taken immediately, one the next morning, and one the following night. If the bowels are not freely moved in four hours after the second dose has been taken, I order a teaspoonful of castor oil or Epsom salts. This stimulates the secretions, acts revulsively by unloading the bowels, and is, in my opinion, to some extent, at least, of service as a germicide. Of course I rely greatly upon local applications to the false membrane, and for this purpose prefer a watery solution of chemically pure hydrochloric acid. Having made a soft cotton-wool probang (by rolling the cotton upon the end of a small staff, as we roll it upon the end of the uterine applicator in the form of a mop, but not as large as the end of the little finger), it is dipped into a solution of one part muriatic acid to four or five parts of water, and is then gently applied to the membrane, care being taken to confine it to the membrane and its immediate neighborhood, although I do not believe any harm ever results from a more general application to the mucous membrane.

This application is gently and carefully repeated only once a day, and is discontinued as soon as the false membrane begins to soften, shrink and disappear, which generally happens in my experience on the second or third day after treatment is begun. It very rarely

happens that the membrane ever spreads after the first application is made.*

The following liniment is freely applied to outside of the throat every two or three hours :

R. Ol. Olivæ f ̄ i.
 Ol. terebinthinæ f ̄ i.
 Spt. camphoræ f ̄ i.
 Tinct. opii f ̄ i. ℥.

And the following mixture is regularly given internally :

R. Potassæ chloraris ℥ iij.
 Syr. simplicis f ̄ iij.
 Aquæ f ̄ iij. ℥.

S. Teaspoonful every two hours.

Some astringent gargle, of alum or lead, or a gargle of sulphur, which custom has rendered popular in this country, is advised. If the child cannot be taught to gargle, a mixture of one part sulphur and three parts sugar may be put into its mouth occasionally in small quantities and swallowed without harm, and possibly with benefit.

I have often used the chlorate of potash in saturated solution, but I prefer the above mixture, and regard it as safer, and really more beneficial than larger doses.

If the patient is seen early in the attack this treatment is very often all that is necessary, and convalescence is soon established, but if, as very frequently happens, the patient has been sick for some days before the physician is summoned, and time has been given for the membrane to spread and putrefy, putrid matter has already been absorbed and the disease has become secondary or constitutional. Now all the symptoms are more aggravated. The glands of the throat and neck are often enormously swollen, and articulation and deglutition painful and difficult. There is generally, but not always, increase of temperature, increased headache, sickness of stomach, and sometimes hæmorrhages from mouth, nose, etc.

*The experiments of Koch have shown that a two per cent. solution of muriatic acid is feebly destructive to the spores of bacilli; of course, then, a twenty per cent. solution is more potent as an antiparasitic.

The appetite is in abeyance, and the discharges from the mouth and nose often acrid and very offensive to the smell. The pulse has lost volume and become frequent and feeble, and its frequency is remarkably increased whenever the subject assumes the erect posture. The face of the patient is often suffused with a dark, livid flush, and as often, perhaps, is only very pale, with an ashy blueness of the lips.

Albuminuria is present in many cases after the system has become poisoned.

These symptoms vary in different subjects according to the differences of constitution and susceptibility of the individual.

In addition to the treatment already indicated, my reliance now is on the muriated tincture of iron, brandy or whiskey, in suitable doses, and quinine.

Digitalis has in many cases seemed to be serviceable as a vasomotor stimulant, or heart tonic, and is especially indicated, in combination with the acetate of potash, when there is much albumen in the urine. If the glands of the neck are very greatly enlarged, in addition to the use of the turpentine liniment, a piece of fat bacon or bacon rind may be sewed to a cloth and applied to the throat from ear to ear, as some advise in scarlet fever. The enlarged glands may be painted twice a day with the tincture of iodine, but I cannot say that I have been able to appreciate much benefit from it.

In many cases I have administered Watson's chlorine mixture, instead of the simple chlorate of potash solution, or have added a few drops of muriatic acid to the solution of potash above written. When the discharges from the mouth and nose are very offensive and acrid, and especially when there is much sloughing, carbolic acid may be added to the muriatic acid solution, and applied to the inside of the throat and nose by means of a soft cotton probang or in the form of spray.

In some cases of diphtheria, even where the deposition of the false membrane upon the tonsils and pharynx is not great, the larynx is invaded, and croupous diphtheria is developed. In the year 1863 I was led by a fit of desperation to adopt the calomel treatment with such a case. This was really a very bad and typical case, and I gave calomel freely, because all other treatment had most signally failed in my hands with other cases, and because I

really did not know what else to do ; but as soon as the calomel began to produce its constitutional effect, as shown by the green spinach discharges from the bowels, the child began slowly to improve, and ultimately recovered.

Since then I have relied upon calomel in tolerably free doses in every such case ; for instance, for a child two years of age, from one and a half to two grains of calomel, given every two hours, guarded, if need be, with a little Dover's powder, and continued until the alvine dejections become as green as grass, and then continued, for a day or two, in small doses, and at longer intervals.

An occasional dose of turpeth mineral is also administered, and the room of the patient is kept well loaded with the steam of lime water.

This treatment has given such good results that a very large proportion of my cases have recovered, better results, by far, than I ever had before from any other treatment, and better results than the literature upon the subject has shown for any other treatment. For the present I shall stick to *calomel*, and since the declarations of Richardson, shall not so much doubt the propriety of giving an aplastic remedy for the cure of an asthenic disease.

We are taught that malignant diphtheria sometimes kills the subject so suddenly, that it is impossible to procure a physician in time. I confess I have but little faith in such cases, but think it more probable that they have had the disease sometime without complaining, or else have been neglected.

A case of paralysis following diphtheria came under my treatment in 1862, and was of so much interest that I will give it here : W. H., aged four and a half years, had a severe attack of the disease with membranous deposit covering both tonsils. He was put upon the treatment then most in vogue, to wit : the chlorate of potash, muriated tincture of iron and a local application to the membrane of the nitrate of silver, but in spite of treatment he grew worse. About the end of the second week his articulation and deglutition became so difficult that he could not speak so as to be understood, and portions of whatever he attempted to swallow were returned through the nose. The paralysis increased slowly until finally he lost the power of speech, could not swallow, and could not move hand, foot or head. When placed in any position, so he remained until some one changed it. He had been given *strychnia* and iron as long as he could swallow, but now all medica-

tion by the mouth had to be abandoned, so he was given electricity twice a day, a blister was applied to the nape of the neck, stimulating frictions were ordered for the extremities and along the spine, and he was sustained by soup, milk, brandy, etc., by enema. After the blister had drawn he could both swallow and speak imperfectly, and I gave 1-80 of a grain of strychnia three times a day, but when the blister had healed the paralytic troubles were again aggravated. By some means his mother was led to believe that he wanted the blister reapplied, and, as it accorded with my own wishes, he was accommodated to a larger one extending a little up upon the occipital bone, and it was kept open sometime by savine ointment.

The electricity was continued, the strychnia gradually increased, and all the other treatment persisted in.

By slow degrees he improved, and ultimately recovered, and is now an active, vigorous man, my neighbor and friend.

During the last summer months and fall of 1885, and up to this time, my son and I have treated seventy-five cases of diphtheria by the plan before mentioned without a single death. About half of the number, or, perhaps, more were seen in the early stage, and submitted readily to treatment, but a considerable number were not seen until they were thoroughly poisoned, and in many cases we had to contend with extensive ulceration and sloughing of the throat, with hæmorrhage from the nose, mouth, etc. In three of the cases croupous diphtheria was well marked, and in several others paralytic troubles followed, but none of a very grave nature.

These were all well marked cases, with tough, tenacious membranous deposit, and could not have been follicular pharyngitis or tonsillitis; nevertheless I do believe, with Dr. Jacobi, that many a case supposed to be pharyngitis, or tonsillitis, is in truth diphtheritic.

Much has been written about the special color of the pseudo-membrane as pathognomonic of the disease. Now, according to my observation, the color depends very much upon the time at which it is first seen. When forming it is a yellowish white, when seen later it very much resembles a piece of dingy yellow buckskin, and later still it is ashy gray, or even blackish in appearance.

During the year of 1862, when the disease was so prevalent among my friends, the two diseases, diphtheria and scarlet fever, prevailed together. In many families, while some of the members had scarlatina with characteristic rash and strawberry tongue and

diphtheritic patches upon the tonsils or pharynx, the larger number had diphtheria without any sign of eruption. Very many writers have spoken of the interchangeability of the specific poisons of the two diseases.

I do not know what truth may be in this theory, but it does sometimes appear that there is a close relationship between the two. Last fall I had cases in my own house pointing in that direction. My little grandson had a severe and well marked attack of angino-scarlatina, and while he was desquamating, his mother, and soon afterwards his father and myself had well defined attacks of diphtheria. It is very important when diphtheria is prevalent to direct parents to examine the throats of their children every day, that the membrane may be detected in its incipency, and thereby a great advantage be gained for the patient. Very many children are really very ill before the disease is discovered, owing to the fact that the average child will run about and play without complaining as long as it is possible to do so. The room in which a diphtheritic subject is confined should always be, when possible, large, well ventilated, and should admit the sunlight freely. Carpets, window-curtains, in fact, all useless drapery ought to be removed, and no person admitted except the doctor and the nurses. The alvine discharges should be disinfected, and all discharges from mouth and nose received upon rags and afterwards burned. Disinfectants should be resorted to in the room as far as practicable, and after the recovery or death of the subject, the room should be as thoroughly disinfected, with its contents, as after an attack of scarlet fever.

Believing firmly in the contagiousness of diphtheria, of course, I am in favor of private burials, without funerals, but I fear it will be a long time before the importance of such measures will be recognized and acquiesced in by the public.

Now, in closing this imperfect paper, allow me to hope that the profession will look over its many defects, and will test in practice the treatment which has for so many years been, to a very great extent, successful in my hands.

DE LUNATICO INQUIRENDO.

By J. W. McNEILL, M.D., of Fayetteville, N. C.

In an article published in the NORTH CAROLINA MEDICAL JOURNAL of November, 1885, Dr. W. C. McDuffie proposes to amend Section 2,225 of the Code of North Carolina so as to provide that in all inquisitions of lunacy the jury shall be composed of "three medical experts"; and in doing so he severely criticizes the inquisition of lunacy in the case of Joseph Howard, of Cumberland county, speaking of it as "*a grand burlesque*"; hoping that the suggestion may "*prevent such another farce*"; speaking of "*the indignant white men and good citizens*" as passing resolutions denouncing Joseph Howard as a "*premeditated murderer*," the effect of which was to arouse "*the world, the flesh and the devil against Joseph Howard*"; and saying that all this "*tempest in a teapot*" was started on account of Joseph Howard's "*want of sense in going crazy at such a critical time*," and intimating that Joseph Howard's blood was demanded by the citizens "*for that it would be so lone-some for the two negroes to shuffle off the coil by themselves*."

Now, I propose to show that there are two sides to this question; that there might be some objections to the proposed amendment; and, in justice to myself as the only expert whose testimony was given by Dr. McDuffie, excepting his own; and, in justice to the court and jury that tried the issue, as well as to the other witnesses, both expert and non-expert, who testified at the trial; and, in justice also to the good citizens of Cumberland county, I wish to show that Dr. McDuffie, in presenting his views, has overlooked or has omitted to state some facts and some testimony which, in my opinion, have a very important bearing on the case.

Howard had been tried for murder at the November term, 1884, by Judge Shepherd and a jury, and it was then that he was solemnly adjudged to be a *murderer* (and that word means all that it implies in "*premeditated murder*"), and that judgment had been approved by the Supreme Court, and the resolutions passed at the citizens meeting only expressed a concurrence in that judgment. According to the order of the courts and the law of the land, the 25th of July had been fixed as the day when the three murderers were to be publicly

executed, and the Governor had seen fit to respite one to the 7th of August, and the purpose of the citizens, as I understand it, was to protest against having two public hangings in their town, with only a few days intervening. I ask if there was not some provocation for their action? There had been a long, patient, careful investigation of the facts and circumstances of the case at the time of the trial (November, 1884). Howard's family and friends were with him, able counsel had been assigned to defend him, and every opportunity afforded him to prepare him for the trial; and upon appeal the Supreme Court, after argument and a careful review of the testimony and rulings of the Superior Court, affirmed the judgment; and, in accordance with the opinion of the court, Howard was again brought to the bar of the Superior Court on the 5th of June and resentenced. But on the 20th of July, more than six months after the trial, it was for the first time suggested of record that Joseph Howard was insane. That suggestion was made by the affidavits of the counsel that had been managing his case for more than six months, and of Dr. McDuffie, who had known him for twenty years, and had testified in his behalf at the trial. Now let us see what was in these affidavits. I have them before me.

The affidavit of counsel states that "neither at the trial, nor until a few days ago, had he heard that it was believed that Joseph Howard was insane." But the affidavit of Dr. McDuffie states "that during all the years of affiant's treatment of said Howard as his family physician (20 years) and since his imprisonment, affiant has observed said Howard's frail mental condition, and has always regarded him a person of unsound mind. * * * Does not believe that said Howard has at any time since affiant's acquaintance with him possessed sufficient mental capacity to be held morally or legally responsible for the enormities of his acts. * * * Affiant imparted the information herein set forth to Howard's counsel since the last continuance of this case and within the last two or three weeks."

It will be observed that these affidavits suggested an insanity of long standing. The question that agitated the public mind and that provoked the public meeting was, why these suggestions were not made at the trial in November, 1884. And although Dr. McDuffie is so shocked at the execution in July, 1885, of a man that he had known to be *non compos mentis* for twenty years, he ought

not to complain if he is asked why he did not impart that information to his counsel or to the court when testifying for the prisoner at the trial in November, 1884. He was asked that question at the inquisition, and his answer was: "I was not called upon at his trial to testify as to his mental condition." (See page 261.) Is that a satisfactory answer?

So much for the citizens. Next in order comes the inquisition of lunacy, tried by McRae, Judge, and a jury of "twelve good men and as fair men as you could find in any county," who, after hearing the testimony, and "after able argument on both sides and an explanation of the law by an impartial judge," as the Doctor admits, then retired and made up a verdict, saying that Joseph Howard was insane. It was that trial that has been characterized as "a farce," "a grand burlesque," etc. It was there that the Doctor encountered the cloud of witnesses, "some thirty or more," both expert and non-expert, whose testimony satisfied the minds of the jury as to the correctness of their verdict. There Dr. McDuffie testified: "I can say positively he is now insane." But at the time when he made that assertion he was the only witness that had been examined, and, as I submit, he was only asserting his opinion, based upon his own observations whilst visiting the alleged insane—and, as I contend, the science is too intricate for a doctor to do more than express an opinion, and in that opinion he may be mistaken, and of course the more he knows of a man's history, his acts and disposition, his trials and previous ailments, etc., the more able he should be to give an intelligent opinion, and the more apt he is to arrive at a correct conclusion. But Dr. McDuffie's testimony was concluded "and the prisoner's counsel rested here." (See page 262.) And the cloud of non-experts then testified. I cannot give their testimony here, it would take too much space—there were a large number of them. Some of them knew Howard all his life, and had lived in the same neighborhood with him; had hunted with him by night and by day; had fished with him; had gone to balls with him, danced with him, and had been with him all sorts of times, at all sorts of places and under all sorts of circumstances. Some of these witnesses had traded land with him, some had swapped horses with him, some saw him on the day of the homicide, some saw him in jail, some before the trial and after the trial, some saw him and talked with him both before and after his resentence, and some had visited and talked with him only a few days before the inquisition.

The sheriff that first received him into jail, and the different keepers of the jail that had been with him daily, and ministered to his wants, were all examined as witnesses. And all these witnesses—this cloud of non-experts—did more than “agree in opinion and pronounce him sane,” they gave facts and circumstances on which they based their opinion. And there was testimony that Howard had before the homicide feigned insanity to accomplish a purpose, and then boasted of it as a smart trick. And there was also testimony going to show acts of feigning after his resentence.

Although Dr. McDuffie and the other doctors could not get relevant answers from him, with some of the witnesses who visited him he conversed sensibly, and that on the same day. Now these witnesses were not men that were unworthy of belief, but they were men whose testimony could be relied on. And I would here suggest that in cases of serious sickness of any kind, the physician often obtains his most valuable information as to the patient's condition, in making up his diagnosis, not by examining him physically, but by questioning the attendants. Is it not especially so in lunacy?

Next after all these non-experts comes the testimony of Dr. McNeill. He says: “I have heard about all the witnesses testify; assuming that it be true, and the jury believe it, I would say he is sane.” That is an opinion based on testimony as to facts. But Drs. McNeill and Ivy “tried him (Howard) in many ways. He would be talking in a foolish way—suddenly ask him about his children—said he had no children, but tears would come in his eyes—he could not hide the emotion. While talking to him, asked him suddenly did he know Cullen Blackman (that was the name of deceased), he would turn red in the face and drop his eyes, but deny he knew him. His manner would show that he knew what I asked him, words to the contrary notwithstanding. He would appear frightened, and go and wrap himself in his blanket. I would follow him and find his pulse as before.”

There is some of Dr. McNeill's testimony that Dr. McDuffie did not copy into his article. Just preceding that which begins at bottom of page 263, the judge's notes show that it should read, “I went to the jail, met Dr. McDuffie, who had just come out; he said that prisoner could not talk then—had aphonia. [The article has it ‘aphasia.’] I went in; found him lying there; he would not answer me; asked him several questions; finally took out a tickler of whiskey, shook it and

asked him if he would have a drink. He [said] he would," etc. Had he feigned his inability to talk whilst Dr. McDuffie was with him, and did his fondness for whiskey overcome him?

Dr. Ivy testified that "he had known Howard for several years; had had some transactions with him; saw him in jail past four or five days; spent half to three-quarters of an hour with him every day until yesterday; observed his conversation and actions; and I think he is a sane man; Dr. McNeill and I saw him together; my present opinion is that he is feigning. In my examination of him I found nothing that might not be feigned."

Dr. H. W. Lilly testified: "Heard E. M. Waddell's testimony; if all the information I had was from his testimony, I should say he was sane; same as to Sheriff McQueen's, J. A. Pemberton's and James Evan's testimony. A great many symptoms of insanity have been mentioned by witnesses; I think every symptom mentioned could be feigned; I have no opinion; I have made no investigation, and therefore am in doubt."

Dr. Haigh had not examined the prisoner; he testified: "Heard testimony of Dr. McNeill; he testified to certain acts of feigning; that would upset the theory of insanity in my mind; Dr. McDuffie stands very high; if his testimony came to me alone, I would be compelled to say he is insane."

There were no other experts examined. Then there were five non-experts examined to support the plea of insanity. And besides these there were no other witnesses for the prisoner except three members of his family, and their testimony related principally to things that occurred previous to the homicide, and much of it seemed to be in reply to the testimony as to the feigned act of insanity, of which the prisoner had boasted, as testified to by the State's witnesses. Upon this testimony the verdict was that the prisoner was sane. And Dr. McDuffie thinks that verdict demonstrates "the folly of the present system." Weigh the testimony: Dr. McDuffie was for insanity, and it is admitted that on account of his great reputation his testimony is entitled to great consideration; but doctors will differ, and then who is to decide but a jury of laymen. And with Dr. McDuffie, for insanity, are the five men who saw the prisoner once in jail, and they were in doubt; and besides them only the three members of the family. And I submit that in the minds of the jury all this was greatly weakened by the

fact that this *alleged* insanity had existed so long and was not suggested at the trial. But on the other side was the testimony of two experts, Drs. Ivy and McNeill, who had visited the prisoner repeatedly ; witnessed acts of feigning ; testified that all his symptoms of insanity could be feigned, and expressed the opinion, from all they had seen and had heard testified to, that he was sane. Dr. Lilly had seen him but once, but expressed the opinion that all the symptoms of insanity testified to could have been feigned ; and Dr. Haigh testified that an act of feigning would upset the whole theory of insanity. And with these there was the cloud of witnesses who had known him all his life, and under all circumstances had had so many dealings, transactions and conversations with him, and had never heard him but that he was sane, "all right," as some of them expressed it. Could a jury of medical experts, even, have rendered any other verdict upon the testimony ? On issues of this sort the preponderance of testimony prevails, and there is a presumption in favor of insanity. No one could hesitate as to which side outweighed in this case. This trial does not deserve to be called "a farce" or "a burlesque."

But Dr. McDuffie's idea of having a jury of three medical experts is impracticable. Juries should be composed of men who have not already decided the case. If the doctors who testified in this case had been put on the jury, which of them would have yielded his opinion in order that the verdict might be unanimous ? They were all experts and were honest in their opinion. Jurors are chosen from the good men of the county who have not formed or expressed an opinion on the issue to be tried. And, although the system may not be perfect, I submit that all good jurors will endeavor to render a verdict in accordance with the preponderance of testimony. Then there are many counties in which there are not three medical experts ; and I submit that in most of our counties a lawyer, upon an issue as to the sanity of a client whose life was at stake, would soon demonstrate the impossibility of finding three medical experts who had not made up their minds.

A UNIQUE CASE—URINARY CALCULUS SLOUGHED OUT THROUGH THE PERINEUM.

By W. T. CHEATHAM, M.D., of Henderson, N. C.

April 10th, 1879, a negro man brought me a urinary calculus of phosphatic composition, weighing $\frac{3}{4}$ i. and $\frac{3}{4}$ ii., about the size and shape of a pullet's egg, the small end terminating in a neck-like extension, one-fourth of an inch in diameter and one-half an inch long. He represented it as having fallen from his little step-son's privates while walking across the floor about two hours previously. This announcement was so startling and seemingly incredible, that I immediately repaired to his place of residence to determine whether it be true or not. I found a boy of eight years standing by the fire partaking of a frugal repast, manifestly little concerned about his condition. He extravagantly represented the calculous diathesis—emaciated, cachectic, dwarfish; his corporeal development not exceeding that of an average healthy child of two years. An examination revealed the following condition: A portion of the perineum, the entire scrotum and both testes had been swept away by the destructive inflammation and sloughing consequent upon the passage of the stone from the bladder to the outer world.

The penis had suffered almost annihilation; its connections to the rami of the ossa pubis and ischia were nearly severed, being attached by a narrow strip of integument, the body of the organ for three-fourths of its length being absent, and the prostate gland, with its urethral connections, sharing a similar fate. The index-finger was passed into the bladder through the opening made by the passage of the calculus; its mucous coating was thickened and morbidly sensitive, giving excruciating pain while passing the finger over its surface in search of concretions; none were found to exist, nature having rid that organ of its only specimen.

Enjoined strict cleanliness and a carbolyzed wash to be applied morning and evening. Ordered,

R. Tr. Fui., Mur., 3 iii.

Liq. Potass. Ars., 3 i. ss.

Infus. gentian, q. s., ad. $\frac{3}{4}$ iv.

M. S. Dose, a teaspoonful before each meal.

16th—Wound improving; granulations healthy; waste space filling rapidly; appetite good, and strength improving.

To maintain the opening for the passage of urine a bougie was passed into the bladder once daily.

30th—Saw him again; the parts had completely healed over, with the exception of a small space at the point of it for the urine.

May 10th—Parts healed completely, nothing remaining but the opening preserved by the bougie, from which there was a continuous stillicidium of urine. Gave general directions as to future management, urging the necessity for a strict maintainance of the opening for the passage of urine.

Saw him again about the 1st of August in company with Drs. J. H. Tucker, of Henderson, and I. R. Wheat, of Richmond, Va. No change worthy of remark.

Saw him two weeks later in company with Dr. W. R. Willson, now of Dallas, Tex. From neglect to pass the bougie as directed, the external opening had closed, resulting in urinary infiltration to the extent of complete anasarca. Pulse feeble (160) p. m.; respiration labored with a preternatural disposition to sleep. The opening was restored, about $\frac{3}{4}$ i. urine escaping. Numerous small punctures were made with the point of a lancet over the body, buttocks and thigh, from which the infiltrated urine freely escaped, emitting an ammoniacal odor. A cathartic dose of bitart. potash was administered, and directions given to let me know the day following if he was living, Dr. Willson concurring in the opinion that he could survive only a few hours. No message was received. Eight days subsequently, while on a visit to a patient in the same neighborhood, I learned that he was living. Called to see him. The anasarca had disappeared, and with it the untoward symptoms. No sloughs, only a few of the punctures presenting an unhealthy condition. Prescribed a tonic, and ordered that the small sores be kept clean with a carbolized wash. I never saw him again, but learn that he died the summer following of acute dysentery. His early history was obscured by the stupidity and ignorance of his parents. I am informed that he inherited the calculous diathesis, his father having died of gravel. His mother and step father thought his trouble commenced when he was eighteen months old, as he suffered pain, and had a difficulty in passing his urine thenceforth until the passage of the stone.

I am of opinion, from the peculiar formation and the composition of the calculus, that it originated in the prostatic portion of the urethra, and its growth by accretion forced its visical extremity into the bladder before taking its departure for the external parts and its ultimate liberation.

UTILIZE THE LEGS FOR VACCINATION.—In the opinion of the *Therapeutic Gazette*, "there is no sense in disfiguring the arm with a vaccination mark," and adds, "According to our opinion, vaccination should always be practised in the upper portion of the leg or the lower part of the thigh. * * * Probably it would be better to utilize both legs."

The only objection to vaccinating upon the arm is the slight scar, which fashionable females who appear in bare arms consider a disfigurement. Really, though, the convenience of vaccinating on the arm is very great. The custom which has existed since vaccination was introduced of inserting the virus in the [left] arm, shortens the public vaccinator's work. When large numbers of persons are to be vaccinated he right away inspects the arm to determine the validity of the cicatrix, more because of the old-time custom of vaccinating that part of the body. It is no less a disfigurement to vaccinate the legs or thighs, and modest women would prefer to expose their arms, either for vaccination or inspection, than the other portions of the body mentioned.


WE have received from Messrs. Cupples, Upham & Co., a "Note-book for Cases of Ovarian and other Abdominal Tumors," adapted from the Note Books of Sir Spencer Wells and the Samaritan Hospital, London, by John Homans, M.D., of Harvard. There is ample room in the blanks for minute record, and a perusal of it is quite suggestive of the immense pains which must be undertaken by the ovariologist.

EDITORIAL.

THE NORTH CAROLINA MEDICAL JOURNAL.

A MONTHLY JOURNAL OF MEDICINE AND SURGERY, PUBLISHED IN
WILMINGTON, N. C.

THOMAS F. WOOD, M. D., Wilmington, N. C., Editor.

 *Original communications are solicited from all parts of the country, and especially from the medical profession of THE CAROLINAS. Articles requiring illustrations can be promptly supplied by previous arrangement with the Editor. Any subscriber can have a specimen number sent free of cost to a friend whose attention he desires to call to the JOURNAL, by sending the address to this office. Prompt remittances from subscribers are absolutely necessary to enable us to maintain our work with vigor and acceptability. All remittances must be made payable to THOMAS F. WOOD, M. D., P. O. Drawer 791, Wilmington, N. C.*

NORTH CAROLINA MEDICAL SOCIETY—ITEMS AND SUGGESTIONS.

For the first time since 1872 the Medical Society will meet in New Bern on Tuesday, the 19th day of May. This will give an opportunity for many physicians to renew their membership and take an active part in the work which all educated persons must have at heart. Since the meeting held in New Bern last, there have been great changes and great advancement in all matters appertaining to the medical profession in the State. Old laws have been revived and made to accord with the principles first announced by the Society in 1839. What was then foreshadowed as a means to elevate the standard of professional acquirements has found its con-

summation in a law to regulate the practice of medicine, and so, not only keeping pace with other States, but actually taking precedence in the thoroughness of these legal provisions. It is a matter of congratulation in this connection that enough States have secured similar legal enactments to give promise that ere long there will be throughout the Union a somewhat uniform standard of acquirements for all persons intending to practice medicine.

We hope that intending contributors of papers to the coming meeting will announce their subjects without delay to the Secretary, Dr. Julien M. Baker, of Tarborough, that they may be freely circulated at least a month in advance of the meeting. Authors of papers will thereby get a more thorough recognition of the merits of their productions, and discussion will be elicited in no other way attainable.

Members who contend for prizes should place their papers in the hands of the Committee on Prize Essays, Dr. R. L. Payne, jr., or the Secretary of the Society, at least a month before the meeting. It is not just to the committee, or to the authors of papers, that these papers should be withheld until the Society has actually convened. There is no assurance that such tardy papers will receive attention.

For the convenience of western men the Board of Examiners held an extra session in Asheville last August, although there was no legal requirement for this extra session. Meeting now at the extreme east, the eastern men, who have hardly any better public way of travel than in the west, will have an opportunity to comply with the law. Doubtless the Board will, if they find sufficient reason, hold an extra session during the year to afford opportunities for all to apply for license, but as there is no official assurance of this, it is better that all who can should obtain their license in New Bern in May. The railroad fare is reduced upon all the lines, and the expenses generally are lessened, during the regular session of the Society.

We are safe in predicting that under the presidency of Dr. Jos. Graham there will be a successful meeting, and to this end we bespeak the aid of all in making timely preparations.

New Bern has a State-wide reputation for the hospitality and superior cultivation of its people, and we look forward with great pleasure to the week we will spend there.

Special announcements will be found either in this JOURNAL or by special circular from the Secretary.

REVIEWS AND BOOK NOTICES.

THE DIAGNOSIS AND TREATMENT OF DISEASES OF THE EAR. By OREN D. POMEROY, M.D. One Hundred Illustrations. Second Edition Revised, with Additions. New York: D. Appleton & Co., 1, 3 & 5 Bond St., 1886. Pp. 413.

A thorough examination of this volume enables us to pronounce it to be among the best works on this interesting department of medicine for the use of the general practitioner.

The instruments used in the examination of the ear, with hints as to methods, modes of testing the hearing, and the appearance of the normal drum membrane, occupy an important space preliminary to the consideration of diseases of the auricle, external auditory canal; diseases of the throat and diseases of the middle ear, mastoid affections, concluding with the unclassified diseases of the ear. Among the latter topics is a chapter of unusual interest entitled "Some considerations regarding fatal cases of suppurative otitis with or without mastoid complications." No class of cases tax the physician's skill more profoundly than the (fortunately rare) cases in which abscess of the brain destroys life. The cases in which the mastoid becomes involved may point out the course of treatment by timely therapeutic surgery; but where there is evidence of mastoid inflammation, and where tentative posterior-auricular incisions give no sign of the presence of pus, it is exceedingly perplexing to know in which direction and how far the surgeon may go in establishing an outlet which will relieve a threatened brain. The discussion of this class of cases is opportune, and while all the present surgery has not been equal to the successful combatting of these cases, it will not be long before we shall know much more than we do now.

The observations of the effect of malaria upon diseases of the ear—the author apparently using the term to denote, interchangeably, marsh miasm and the malaria of defective house drainage—are rather meagre.

The volume is not too voluminous for hurried consultation upon practical points, but has an index which could be greatly improved, and so render the book far more valuable to the profession.

PUERPERAL CONVALESCENCE AND THE DISEASES OF THE PUERPERAL PERIOD. By JOSEPH KUCHER, M.D. New York: J. H. Vail & Co., 1886.

This little volume is very instructive and readable. It is a complete exponent of what is understood as the antiseptic methods in the lying-in chamber, and is rather extreme in some of the antiseptic teaching. The author claims, though, that his book is founded upon his experience in the Vienna lying-in hospital, where, during his term of service "about forty thousand women were confined," a third of which came under his immediate observation.


The results of antiseptic management of parturient women gave in 1878 29 deaths in 3,142 women, "and during the most unfortunate time the mortality did not reach two per cent." The author extols the value of the work done by Semmelweiss, and is his ardent follower in all the details of antiseptic practice. His statement that "most women are confined by physicians in this country" is certainly not correct. In all the Southern States we doubt if more than one-third of the labors are conducted by physicians. There are many good things to be learned from this little volume, and we commend it to the perusal of those physicians who have not already adopted antiseptic methods in their obstetric practice.

CLINICAL NOTES ON UTERINE SURGERY, with Special Reference to the Management of the Sterile Condition. By J. MARION SIMS, M.D. [Memorial Edition in paper for \$1.00.]

Doubtless some of the readers of this volume will cast it aside slightly; but not so fast, gentlemen! do not scorn the peg on which you so humbly hung your hat when you first entered the great field in which you now exploit with named speculum and pessary to the admiration of a host of fashionable ladies.

Let us treat our old friend, the first manual of the now famed department of gynecology, with warm affection. Base would be the man who could pass by the spelling-book of his childhood days and not have kindled within him a spark of affection for every page from Baker to the renowned picture illustrating the forlorn maiden grieving over spilt milk.

The glorious fame of Sims rises higher and higher as we get the true perspective of his achievements. Just in the door-way of a great cathedral we may question if the architectural beauty of the



building we have long held in our minds as the ideal is so great after all ; but as we get farther off and view the beautiful pile in all its splendid proportions, standing in the midst of buildings which by themselves would be well enough, but which in this great presence are insignificant, and even pitiful attempts at architecture, how grandly the old cathedral towers above all. We make no apology for borrowing an old figure to illustrate the monumental character which Sims has left. It is the duty, as it must be the pleasure, of all teachers to direct young physicians again and again to the achievement of the great men who at long intervals have illuminated the dark way of medicine—Sydenham, Hunter, Jenner, Sims—lives all full of light to make us wise, and quarries where the rare gems are still to be had for those who are willing to dig.

PRACTICAL NOTES ON THE TREATMENT OF SKIN DISEASES. Part I, Diseases of the Perspiratory and Sebaceous Glands. Part II, Eczema. By GEORGE H. ROHÉ, M.D., etc. Baltimore: Thomas & Evans, 1885-'86.

When the first part of Dr. Rohé's booklet made its appearance he promised to follow it at intervals by similar contributions on other skin diseases. We are pleased, therefore, to notice that Part II, followed at such a short interval, because it indicates the success attending the first issue. The subjects are treated in a clear and practical language, and in language well calculated to entice the student into this very-superficially-studied branch of medicine. We trust it is Dr. Rohé's intention to include all the important practical parts in these convenient booklets, and when completed we will have in them a valuable enrichment of the science and art of dermatology.

THE METHODS OF BACTERIOLOGICAL INVESTIGATION. By FERDINAND HUEPPE. Translated by HERMANN M. BIGGS, M.D. Illustrated by 31 Wood-cuts. New York: D. Appleton & Co.

This book was prepared at the urgent wish of Dr. Robert Koch, and has been translated by Dr. Biggs, of the Cornegie Laboratory, New York.

For biological study he divides the study of bacteria into septic (saprophytic) bacteria, which feed on dead organic bodies, and the parasitic, which are found in living organisms. Further explanation

is given as to the general course pursued in the dying bacteria: (1) To determine whether bacteria are present or not. (2) If present, what forms they possess. (3) Each form is to be cultivated by itself, free from all chemical and morphological admixtures—"pure cultures." (4) By transfers of really pure cultures to decomposable materials or susceptible animals, it is to be determined whether the bacteria found are the cause of decomposition or disease. Then, extending the pure cultures, there are yet (5) A further series of more exact biological problems to be solved later, which, in union with the first questions, afford the broad basis for theoretical consideration and practical treatment.

The *first* section of the book is devoted to a running history of spontaneous generation and the principles of sterilization; the *second*, to forms of bacteria and microscopical technique; the *third*, to culture methods, and pure cultures; the *fourth*, to inoculations for the determination of the causal relation of bacteria-growth to decomposition and disease; *fifth*, general biological problems; *sixth*, special hygienic investigation; *seventh*, bacteriology as an object of instruction.

This is the best book so far available in English, being better adapted to the general student who undertakes the study from first principles.

THE FIELD AND LIMITATION OF THE OPERATIVE SURGERY OF THE HUMAN BRAIN. By JOHN B. ROBERTS, A.M., M.D. Philadelphia: P. Blakiston, Son & Co., 1885. Pp. 80. [Price \$1.25.]

This essay has taken a permanent place in surgical literature, as a thoroughly well-studied problem. The preliminary knowledge of physiology and pathology, which was the essential foundation of the surgical procedures here described, robs the practice of what otherwise would seem daring—*audacité*.

This work was presented to the American Medical Association, and has been before the public for sometime, and we are pleased to know that it has been preserved in the present shape. The author's "creed," as given below, cover the headings of his essay:

I. The complexus of symptoms, called "compression of the brain," is due not so much to displacing pressure exerted on the brain substance as it is to some form or degree of intracranial inflammation.

II. The conversion of a closed (simple) fracture of the cranium into an open (compound) fracture by incision of the scalp is, with the improved methods of treating wounds, attended with little increased risk of life.

III. The removal of portions of the cranium by the trephine or other cutting instruments is, if properly done, attended with but little more risk to life than amputation of a finger through the metacarpal bone.

IV. In the majority of cranial fractures the inner table is more extensively shattered and splintered than the outer table.

V. Perforation of the cranium is to be adopted as an exploratory measure almost as often as it is demanded for therapeutic reasons.

VI. Drainage is more essential in wounds of the brain than in wounds of other structures.

VII. Many regions of the cerebral hemispheres of man may be incised and excised with comparative impunity.

VIII. Accidental or operative injuries to the cerebral membranes, meningeal arteries or venous sinuses should be treated as are similar lesions of similar structures in other localities.

IX. The results of the study of cerebral localization are more necessary to the conscientious surgeon than to the neurologist.

The first division of the treatise is upon principles of cerebral surgery; the second to cerebral localization; the third to the operative treatment of cerebral injuries with illustrative cases.

A SYSTEM OF PRACTICAL MEDICINE BY AMERICAN AUTHORS. Edited by WILLIAM PEPPER, M.D., LL.D., assisted by LOUIS STARR, M.D. Vol. IV. Diseases of the Genito-Urinary and Cutaneous Systems, Medical Ophthalmology and Otology. Philadelphia: Lea Brothers & Co., 1886. Pp. 887.

The contents of this volume indicate a new departure from other "Systems of Medicine," in the introduction of the diseases of women, more than one-third of the volume being devoted to it.

The array of matter is very large, beginning with diseases of the genito-urinary system: "Diseases of the kidneys, including the pelvis of the kidneys, by Robert T. Edes, M.D.;" "Diseases of the parenchyma of the kidneys and perinephritis, by Francis Delafield, M.D.;" "Hæmaturia and Hæmaglobinuria or Hæmatinuria, by Jas. Tyson, M.D.;" "Chyluria, by James Tyson, M.D.;" "Diseases of

the male bladder, by Edward L. Keyes, A.M., M.D."; "Seminal Incontinence, by Samuel W. Gross, A.M., M.D."; "Displacements of the Uterus, by Edward C. Dudley, A.B., M.D."; "Disorders of the Uterine Functions, including Amenorrhœa, Dysmenorrhœa and Menorrhagia, by J. C. Reeve, M.D."; "Inflammation of the Pelvic Cellular Tissue and Pelvic Peritoneum, by B. F. Baer, M.D."; "Pelvic Hæmatocele, by T. Gaillard Thomas, M.D."; "Fibrous Tumors of the Uterus, by William H. Byford, M.D."; "Sarcoma and Cancer of the Uterus, by William H. Byford, M.D."; "Diseases of the ovaries and oviducts, by William Goodell, M.D."; "Diseases of the Urinary Organs in Women, by Alexander J. C. Skene, M.D."; "Diseases of the Vagina and Vulva, by Edward W. Jenks, M.D., LL.D."; "Disorders of Pregnancy, by W. W. Jaggard, M.D."; "Diseases of the Parenchyma of the Uterus, Metritis and Endometritis, including Leucorrhœa, by W. W. Jaggard, M.D."; "Abortion, by George J. Engelmann, M.D."; "Diseases of the Muscular System, by Drs. James C. Wilson, James Tyson and Mary Putnam Jacobi.

Diseases of the Skin occupies about 150 pages, and is contributed by Drs. Louis A. Duhring and Henry W. Stelwagon. The volume is concluded by a section on Medical Ophthalmology, and one on Medical Otology, the former by William F. Norris, M.D., the latter by George Strawbridge, M.D.

The index is copious, and is all that could be desired.

This work is only sold by subscription for the entire set, and it is now, and will be for long years to come, an indispensable part of every doctor's library.

LOCAL ANÆSTHESIA IN GENERAL MEDICINE AND SURGERY—being the practical application of the author's recent discoveries. By J. LEONARD CORNING, M.D., etc. New York: D. Appleton & Co., 1, 3 & 5 Bond St., 1886.

This brochure is to introduce the methods employed by the author in producing local anæsthesia by means of cocain. His ingenious plan is to render the limb bloodless by a rubber bandage, select a point to avoid a vein, inject a solution of hydrochlorate of cocain. The injection should be made close to the margin of the bandage, and he uses for this purpose a one-or-two-per-cent. solution, injecting the anæsthetic into the skin just below the epidermis, in doses

of from 2 to 4 minims, as circumstances may indicate. After superficial injections are made, then, by means of long, fine, hollow needles attached to a syringe. This injection is made slowly, at the rate of a drop or two at a time. The author cautions against strong solutions in this method.

Another method of localizing anæsthesia by cocain is accomplished by using rings composed of wire and covered by India-rubber; the ring is applied by means of tapes fastened to wire arms extending from the ring, thus admitting of direct pressure. The author has not found as good results from this plan of localizing the effects of the drug.

There is a profuse number of illustrations for such a limited subject, and it is surprising how so many instruments of the author's devising could be brought together.

COCA ERYTHROXYLON AND ITS DERIVATIVES.—A resumé of their History; Botanical Origin; Production and Cultivation; Chemical Composition; Therapeutic Application; Physiological Action, and Medical Preparations. Embracing reports on their Employment in General and Minor Surgery; Ophthalmology; Otology; Gynecology; Genito-Urinary, Nasal and Dental Surgery; in the Treatment of the Alcohol and Opium Habits; in General Medicine, etc. Compiled by the Scientific Department of Parke, Davis & Co., Detroit.

We have quoted the title of this handsome pamphlet in full, as it better describes its character. It has for a frontispiece an excellent reproduction from Bentley & Trimen's Medical Botany, a wood-cut of *Erythroxylon Coca*. We do not know where one could find in one hundred pages more accurate and complete knowledge of coca. The pamphlet is presented to the medical profession with the compliments of Parke, Davis & Co.

OUR ADVERTISERS.—Advertisers in this JOURNAL are notified that the meeting of the North Carolina Medical Society takes place in New Bern on the 19th May. Following an established custom, we will take pleasure in serving our advertisers by distributing printed matter and samples at this meeting. Those who have tried the experiment have seen the advantage of it.

NEW HANOVER COUNTY MEDICAL ASSOCIATION.

The regular monthly meeting of the above Society was held on the evening of February 16th, Dr. William J. Love in the chair.

After the reading of the minutes of last meeting the President called for the regular essay, when the essayist, Dr. W. J. H. Bellamy, read a very entertaining paper on the "Mode of Administration of Quinine and Merbary." (See page 141.)

Dr. C. T. Peckham being regularly appointed to open the discussion did so by saying that he could, in opening the question, do no better than call attention to some of the facts demonstrated by Dr. Bowditch, of Boston, during his course at school. He demonstrated that animal membrane or paper moistened with bile would filter the non-crystalline substances, such as fat, more readily. It could be observed in giving cathartics. He thought the bile might be considered as a sort of "house-cleaner"; that its office seemed to be to clear out the system. By giving the cathartic before the administration of quinine you hurry the bile along through the small intestines, it preparing the way for the quinia to be absorbed more readily. He often noticed that in giving a cathartic such as calomel combined with colocynth to act on the lower bowels, he got a better effect. It was his opinion that mercury does not produce an increased excretion or secretion of bile, but hurries it out of the system. In the cases of dogs experimented on an increased flow of bile was not induced. As regards quinine—its operation on people—he thought it would be an easy question to demonstrate if we only knew exactly what fever really is. In regard to the point of giving quinine in different forms, he thinks the best effect to follow that given in solution. Of course it is disagreeable to take, but it is absorbed more readily, as when it reaches the stomach it is in solution.

Dr. Peckham went on to say that the germ theory alluded to in the essay was a very interesting point to bring up. He mentioned a point in Brinton's Therapeutics about the effect of quinia locally applied; locally it prevents the wandering of the white corpuscles through the tissue, but does not prevent their escape from the

vessel. When injected into the vessel it prevents the white corpuscles from escaping, but has no effect on those already outside the vessel.

He also states that to do that you would have to give about four grammes of quinine, and the quinia in the blood would have to be kept up to that point for several hours.

He says his method has been to give an active cathartic—for instance, 8 grains of calomel and 12 grains compound extract colocynth, and if the fever is very severe he gives quinia every four hours, in 5 or 10-grain doses, according to urgency, and keeps it up for two days until the prospect for another chill has passed.

Another point observed by him is that when a patient may have had some diarrhoea and you put him on quinia thinking his bowels already cleared out, he will remain in about the same condition for several days. Then give calomel or blue mass, followed by a dose of salts in six hours, he immediately begins to improve. He questions if the diarrhoea be not a diarrhoea of the lower bowel only, and the epithelium remains in a foul condition rather than lay the blame on the quinine. He thinks the idea of the bile acting as a "house-cleaner" one of practical interest.

There is another point mentioned by Brinton. If you give quinine followed by an acid drink the bitter taste disappears. He thinks he could locate the position of the capsule in his stomach when dissolving within the space of a silver dollar.

Dr. Schonwald said that in regard to the mode of administering quinine, he got some peculiar ideas from his father. His father used to put up a preparation that contained from 16 to 20 grains of quinine that was given in 12 hours. He gave a cathartic first, then this mixture in solution, and generally in intermittent fever the fever was broken. When he began to practice medicine he used the capsules and could never get a result from it. He thought there was some difference in the kind of quinine used. He has always found when he gives quinine in solution it takes from 10 to 15 grains less than in capsules or pills. A pill mixed with honey or a capsule will have the desired effect if preceded by a cathartic. In his practice on ship-board, if he is called to see a patient with malarial troubles and the vessel is going to leave soon he would give

R. Quin. Sulph.	gr. xx to xxv.
Res. Podophylli	gr. ʒ to i.
Aloin.	gr. ij.
Extr. Colocynth, co.	gr. viij.
Extr. Hyoscyami	gr. 1.
℥ fl. cap.	iv to v.

One every hour.

He gives that at night to be followed in the morning by quinine—about 5 grains per hour. If he has time he generally starts off at night with calomel and resonoid cathartics, and begins next morning with quinine to give 30 grains in the first five or six hours. He thinks the quinine will not have anything like the desired effect until you give the cathartic with it.

Dr. McDonald, in giving calomel, gives from 2½ to 3-grain doses, with soda, every two hours, and finds it acts very well and produces no nausea.

Dr. Wood said our success depends largely upon the way we give medicine. He did not think it would be far wrong to say that half of the business with sick people is for diseases in which, during part of the time, quinine becomes one of the important items. The question of how to give this drug to people with weak stomachs, and especially to young children, in a pleasant way, is one we have to work out at the bed-side. We are more successful when we sweep out the alimentary canal with a purgative, and he thinks the best of these is calomel, and this especially where there is a great amount of gastric irritation. And the calomel, far from being an irritant in these cases, very frequently produces a decided sedative effect. So successful has the combination of soda with it been, that you will find that very many families will prescribe soda and calomel without consulting a physician. They are of the general opinion that calomel alone is a little dangerous, and that soda lessens the acidity of the stomach, and thus removes the danger.

In river fever the object to be attained is rapid, knowing very well if you have a temperature of 105 or 106 late in the evening and the remission is very slight, that the next day you will have danger unless the patient is cinchonized. If the temperature has not fallen to the safe line he has been in the habit of giving the fluid extract of jaborandi. He gives 30 drops every half hour until copious salivation and sweating ensue.

There are some conditions in which hypodermatic medication is invaluable, for the reason that the stomach is full of tenacious mucous and the stomach and alimentary canal in a very sluggish condition, and even if we succeed in getting a dose of quinine in a very soluble form, it would lie untouched in the stomach because it could not penetrate this mucus. In this case he resorts to the hypodermic injection of quinine. It is a method which, in spite of all we know about it, will now and then produce abscesses.

Now, as to the mooted question of the ability of the physician to cinchonize a patient by the endermic application of oleate of quinine, he believed that there was no longer any doubt that quinine entered the circulation by the skin.

He produced a specimen of urine passed by a child who began the use of quinine endermically forty-eight hours before, and with chlorine water and ammonia it gave the reaction for quinia, proving that quinine does really enter in this way, although it has been denied by Dr. Shoemaker.

He was treating a patient at the works of the Acme Fiber Company by the endermic use of the oleate of quinine and the chemist made analyses of the urine daily and found quinia invariably, even forty-eight hours after the application of the oleate was suspended.

He is far from believing that quinine can be relied upon in the rapid and grave cases of malarial fever, but in those cases of low forms of fever—for instance, take a case of leukemia, or a case of *tabes mesenterica*, when the stomach is always unreliable, you do not want to run any risk of disturbing the stomach and lessening his nutrition. It shows there is one way whereby we can treat infants. He takes a teaspoonful (of oleate 3 j. alkaloid to 3 ij. oleic acid) at a time and spreads it over the abdomen and covers it over with a thin cloth, and it only takes an hour for the oleate to disappear.

Dr. Schonwald has found in his practice that it is unsafe to withdraw the use of quinine until the temperature has been reduced *below* the normal. It is not sufficient that it be reduced to the normal only.

Dr. Wood has had the same experience, and mentioned a case in which the temperature was continued as low as 95° for more than 48 hours.

Dr. Love reminded Dr. Wood that he omitted one method of medication by quinine that they had both used years ago with success, viz: the denudation of the abdomen by means of stronger ammonia, and the application of quinine upon the raw surface. The blistering rendered a good service, and the skin was made actively absorbent.

CURRENT LITERATURE.

A MODE OF CONCEALING THE TASTE OF QUININE.

The *Medical and Surgical Reporter* (Feb. 27) mentions editorially a new method of masking the bitter taste of this drug, which was accidentally discovered by Professor Hugo Engel. He had been in the habit of prescribing in the moist stage of bronchitis, equal parts of muriate of ammonia and powdered extract of glycyrrhiza, and on one occasion, while prescribing this powder, to fulfil a special indication in the case, added four grains of quinine to each forty grains of the powder. He told the patient, who had previously taken the powder alone, of the bitter taste he had to expect, and was not a little surprised when the patient informed him that he detected no such taste whatever. Since then Dr. Engel has tried the same combination in a number of cases, and also induced some colleagues to make use of it, and all agree that it is the best method yet discovered to conceal the bitter taste of quinine. Children usually like licorice, and as a small dose of muriate of ammonia probably never can do harm when quinine is indicated, we possess now the means of administering quinine to young children without the trouble formerly connected with this remedy. The following combination seems to be the best for the purpose :

R	Quiniae sulphatis.		
	Ammoniae muriatis,	āā	gr. j.
	Pulv. extracti glycyrrhizæ,		gr. iv.
M.—Ft. Pulvis.	S.		

In the same proportion larger doses may be given, but it does not seem to be necessary to take more than ten grains each of powdered extract of licorice-root and muriate of ammonia to ten grains of quinine, so that probably after a certain quantity of quinine, that of licorice need not be increased in the same ratio as has to be the case with smaller doses.

Persons with a sensitive palate, about two minutes after they have taken this compound quinine-powder, have a slightly bitter taste,

which, however, soon ceases; besides in children it is the main point to conceal the taste of the drug at the time they are taking it, so that if greater experience should demonstrate the fact that a few minutes after the dose has been swallowed a bitter taste appears, we still would have gained a valuable addition to our corrigents.

The muriate of ammonia and the powdered extract of licorice-root must be finely powdered and intimately mixed, and kept in a dry and warm place. There should also be first added only a little water, the same as we do in the case of flour when we wish to make a paste, otherwise the licorice swims in the form of little balls in the water, and is then difficult to dissolve. As soon as the whole—the muriate of ammonia, the powdered extract of licorice-root, the quinine and the water—forms a homogeneous mass of syrup-like consistence, the remainder of the water, about half a tumblerful for twenty grains of the muriate of ammonia—otherwise the latter may cause griping—may be added.—*Boston Medical and Surgical Journal*.

INTRAVENOUS INJECTION OF SALINE SOLUTION.

Dr. Dimitry O. Ott, of St. Petersburg, has written an "Inaugural Dissertation," which embodies the results of his extensive and prolonged experiments carried out at the respective laboratories of Prof. Kronecker, Cohnheim, F. Hofmann, Kries, and J. P. Tarkanhoff. It consists of three parts, the first of which treats the question of intravenous injection of common salt; the second, that of injection of blood-serum, and defibrinated and whole blood; and the third, that of auto-transfusion (from the left carotid into the left jugular vein of the same animal). The experiments will be of interest to our readers in view of the interesting case recently recorded in the *Journal*, in which salt solution was injected with happy effect. We make room for Dr. Ott's conclusions, which are thus given in the *London Medical Record* (February 15):

"From all the experiments with blood, the author draws the following general conclusion. On transfusing blood—defibrinated or whole, taken from the same animal, or from another—we cannot possibly say that it may be inoculated to the anæmiated receiver. On the con-

trary, we must regard the blood transfused as a dead body, destined for elimination out of the system in course of time. 'The blood transfused dies under the influence of contact with the dead tube of the transfusion-apparatus. It is possible, however, that in future there will be invented a technical contrivance for the transfusion, under which the blood transfused will preserve its full vitality—such as the use of excised blood-vessels, instead of India-rubber or glass tubes, etc.' It is not difficult to foresee the practical general corollary drawn by Dr. Ott from all his interesting experiments. 'The danger from hæmorrhage,' the author says, 'when the loss does not exceed two-thirds of the whole mass of the animal's blood, consists in establishing a disproportion between the capacity of the blood-vessels and their contents. This danger may be obviated by introducing a certain amount of fluid, and that with pretty equal success, whether the fluid contain albumen and blood corpuscles or not. It is necessary only that it possess indifferent properties, and that it be harmless to the system. The regeneration of the anæmiated organism, and the return of the latter to its original normal condition, take place at the expense of the organism itself, since an organic fluid or morphological elements, introduced into the vessels by means of transfusion, undergo destruction, and are eliminated out of the system. However, in consequence of the fact that the destruction and elimination of all other fluids proceed more slowly than when a saline solution is used, the regeneration of the organism under the injection of common salt is attained more rapidly and more completely than under the transfusion of albuminous fluids, especially under that of blood.' Accordingly, the author emphatically recommends the treatment of acute anæmia by intravenous injection of an 0.6 per cent. solution of common salt. It is only natural that he discards also injection of egg-albumen, milk, peptones, etc."—*Boston Medical and Surgical Journal*.

ACONITE used as an external application (*Therapeutic Gazette, N. Y. Medical Record*) had no effect upon a patient until a warm foot-bath was given the morning following its use, when serious aconite poisoning was developed requiring active restorative treatment. The hot water excited the skin and promoted absorption.

TWO NEW HYPNOTICS.

The discovery of two new hypnotics is indeed a subject of congratulation. For the introduction of the first of these, urethan, of which we gave some account in the *Journal* of September 26th, 1885 (p. 611), we are indebted to the experimental investigations of the well-known pharmacologist, Schmiedeberg, who, in his laboratory at Strassburg, fully investigated its action on the lower animals. Uretlan is the æthylic ether of carbaminic acid, and its chemical composition may be represented by the formula $C_3H_7NO_2$. Fortunately, it has no odor and no disagreeable taste. It may be obtained in beautiful white crystals, which are freely soluble in water. Its action on man has been investigated by jolly, Kobert and von Jaksch, of Vienna. Von Jaksch's observations were made on twenty patients suffering from various forms of insomnia. His first experiments were with doses of a quarter of a gramme, or about four grains, but this was insufficient to produce any distinct hypnotic action. He then increased the dose to nearly eight grains, and found that this usually sufficed to produce several hours' good sound sleep. In a patient suffering from hemiplegia associated with disease of the mitral valve, whose general condition contra-indicated the employment of morphine or chloral, it answered admirably, giving a good night's rest without any disagreeable after-effects. Another patient, suffering from a painful aortic aneurysm with persistent insomnia, was given a dose at 6 p. m. with little or no effect, whilst another dose administered at 11 p. m. gave calm, refreshing sleep until three the next morning. Dr. von Jaksch made over a hundred observations with the drug, and is enthusiastic in its praise. It proved most successful in simple, uncomplicated cases, and was of comparatively little value when the patient suffered from acute pain. He states that it is particularly suitable for administration to children, the absence of disagreeable taste being a very great advantage. A short time ago Dr. Saundby, of Birmingham, recorded two cases of cardiac insomnia treated successfully by two-grain doses of urethan, given at bedtime in solution in water. One of these was a case of aortic and mitral incompetence, with congestion of the lungs, hæmoptysis, pleural effusion and œdema of the legs. The patient, as soon as he fell

asleep, awoke with a dreadful feeling of suffocation, and for three nights had little or no rest, but subsequently, with the aid of urethan, he slept well and his condition greatly improved. The other case was one of cardiac dilatation, with mitral incompetence, the heart's action being very feeble and irregular. The patient had not slept for many nights, but urethan produced the desired effect, and she soon slept soundly. Dr. Myrtle, of Harrogate, speaks equally enthusiastically in its praise, and considers that it is superior, not only to chloral, but to all the hypnotics in common use. It gives rise to no unpleasant effects, such as nausea, flatulence, headache or constipation. It may be given simply dissolved in water, or with some flavoring agent.

For the other new hypnotic we have to thank Dr. Dujardin Beaumetz, who recently submitted to the Académie de Médecine of Paris the results of a series of observations on aceto-phenone, or, as it is more commonly called, hypnone. This compound is prepared by the action of chloride of benzoyl on zinc-methyl, or by distilling together a mixture of benzoate and acetate of calcium. It is a colorless mobile liquid, having an odor not unlike oil of bitter almonds or cherry-laurel water. It has a very decided physiological action, for a cubic centimètre injected under the skin of a guinea-pig produced a torpid comatose condition, from which the animal did not recover. The respiration was quickened, the heart-beats became fewer in number, the animal started convulsively, gradually grew colder, and died. To produce sleep, it should be given in doses of from two to sixteen minims; and, if administered at bedtime, it uniformly produces a well-marked hypnotic action. It may be diluted with alcohol, ether or glycerine, but the best way to give it is in capsules. It communicates to the breath a somewhat disagreeable odor, but its taste may be masked by syrup of orange-flower or oil of sweet almonds. Dr. Dujardin Beaumetz's observations have been fully confirmed, both by Dr. Constantine Paul and by Dr. Huchard.—*British Medical Journal*.

TINCTURE OF STRAMONIUM IN EPILEPSY.—Cases of petit mal are materially benefited by the use of tincture of stramonium—15 drops three times a day for some days. This may be given alone, especially after a long course of potassium bromide. It is a much neglected remedy.

NOTES.

"DIFFICULT CASES A SPECIALTY" is the announcement in an advertising card appearing in one of the newspapers of a western county in this State. A new specialty, indeed, for a doctor only one year a licentiate of the State Board of Medical Examiners.

HYDROPHOBIA IN PARIS.—There were nineteen deaths in Paris last year from hydrophobia. The period of incubation was from 19 months to 29 days. As to the duration of the disease, the extreme limits were 1 day and 8 days.

BORAX IN EPILEPSY.—Dr. Charles F. Folsom, of Boston, has had some good success in the use of borax (10 grains 3 times a day, increased to 15 grains, and finally to 20), which he sometimes alternates with bromide of potassium. The only annoyance noticed was the production of a scaly eruption, giving rise to a good deal of itching, which was cured with arsenic internally and oxide zinc externally.

JACOBI ON THE DIGESTIVE PROPERTIES OF PAPAYOTIN.—The juice of the (*Carica papayæ*) papaw, as a digestive agent, is gaining more and more in its favor. This time Dr. Jacobi (*Therapeutic Gazette*, March) gives his experience with it. He gives four cases of diphtheria treated with papayotin successfully.

[The American papaw, bearing the same common name, must not be confounded with the South American plant. The former is *Asimina*, a genus far removed botanically from *Carica*. The latter belongs to *Passifloreæ*.—Ed.]

New Yorker Medizinische Presse is the name of a new medical journal just established in New York as the organ German-American physicians. Doubtless it will be well sustained by the numerous German physicians scattered all over the North and West. Besides this it will be a valuable aid to the doctors who are studying medical German, and for this purpose we commend it to our younger friends who have discovered that a knowledge of German is a helpful accomplishment. Subscription is \$2.50, which should be sent to German Medical Press Company, 23 Vanderwater St., New York.

ACETIC ETHER.—A few drops administered on sugar will usually revive persons who have become insensible from illuminating gas.—*American Druggist*.

PERMANGANATE OF POTASSIUM IN AMENORRHEA.—Dr. Fordyce Baker affirms that permanganate of potassium he has never known to fail in cases of over-taxed young ladies at boarding schools; ladies, both young and married, who suffer severely from seasickness—that have left some European port within a few days of the menstrual period; ladies between 30 and 40, generally married, some of whom have borne children, who rapidly begin to gain flesh, grow stout, menstruation in quantity and quality. The use of the medicine should, if necessary, be continued three months. Two grains three times a day is about the proper dosage. It should be given in a capsule, and begun a week before the expected menstruation.

A VALUABLE NEW SYRINGE FOR GENERAL USE.—It is worthy of note that at last an ideal continuous-flow syringe has been made. Its construction is like that of the well-known Davidson pattern, with the exception that the tube into which the nozzle is fitted is made of distensible rubber, folded or corrugated (fluted might be a better word)—and by this device an even pressure is kept when the bulb is manipulated, giving a continuous flow. This flow can be made gentle or strong, according to the degree of force exerted on the bulb. The advantage will be readily appreciated, for the flow is not only continuous, but there are no bubbles of air which in the old intermittent current syringe is so objectionable. One trial of the syringe will establish its great superiority, and it will at once become an indispensable part of every doctor's outfit. The price is the same as for other good quality syringes. The trade name of this instrument is the "Alpha Continuous Flow Syringe," and is made by Messrs. Parker, Stearns & Co., New York.

PNEUMONIA DUE TO A SPECIFIC CAUSE, AND NOT TO VICISSITUDES OF WEATHER.—An esteemed correspondent calls our attention to the fact that he enunciated the doctrine (*Med. Jour. North Carolina*, Vol. I. p. 6-8, edition 1858-'59) that cold and atmospheric vicissitudes are insufficient for a full and satisfactory explanation of the prevalence of this disease, and that there must be some

other principle generated in some unknown way, and pervading the atmosphere of certain localities, which, by its action on the human system, independent of any other agency, causes certain inflammatory affections of the various tissues.

The theory of Jurgensen as to the specific origin of pneumonia, was, therefore, foreshadowed in this JOURNAL over twenty years ago. The author of the theory, Dr. William R. King, of Franklin, has, unfortunately for the profession of his State, allowed his pen to rust, that is, so far as his contributions to the JOURNAL is concerned.

LEWININ—A NEW LOCAL ANÆSTHETIC.—A new local anæsthetic—a semi-fluid resin obtained from the root of *Piper methysticum* by extraction by petroleum-ether, two resinous bodies being obtained, that of lesser density only being efficient—has been discovered by Lewin and called by him “Alpha Kava Resin.”

In an article in the *Medical News* of March 13, Dr. N. A. Randolph has substituted the name lewinin, from its discoverer. He says: “Lewinin is too painfully irritating to apply in practice to the human conjunctiva, but it is my belief that, by the previous application of cocaine, the lewinin in solution could be instilled into the conjunctival sac and produce its characteristic effect of prolonged local anæsthesia before the more temporary effect of the former drug had passed off.”

It will probably be of service in dental practice, as it mitigates the discomforts of operations on the teeth. It promises especial practical benefit in cases where only a relatively superficial anæsthesia is desirable.

Dr. Harrison Allen has found several cases of nasal trouble in which a fifty per cent. alcoholic solution was substituted for cocaine and its action found most satisfactory.

[Ava, or Kava (*Piper Methysticum*) is cultivated in the tropical islands of the Pacific; its root, when bruised, chewed, impregnated with saliva and mixed with coco juice, is used to prepare a very intoxicating and narcotic liquor, the frequent use of which is not less pernicious than that of Betel.—Ed.]

GLAUBER'S SALT FOR ASTHMA.—Dr. Chenery, of Boston, mentions a physician who, years ago, told him that after twenty years use, for himself, of the hundred and one remedies recommended,

he had not found anything so prompt and satisfactory as Glauber's salt. When the attack comes on (usually in the night) the lungs close and he seems to be breathing, as it were, through dry metallic tubes. At these times he starts out of bed, seizes a handful of the salt (which he always keeps within reach) and puts it in a tumbler of water, stirs, and begins to sip it, and by the time he gets a fire kindled, moisture starts in respiratory passages and the spasm relaxes. Having sipped awhile longer, and become warm, he is able to return to bed. The next morning a slight cathartic action follows, and he is about as well as before.—*Therapeutic Gazette—American Druggist*.

DISINFECT THE SPUTA OF PHTHISIS.—No judicious physician will be willing to neglect the disinfection of sputa from consumption. The accumulation of knowledge of the bacilli found, whether we admit or not that they bear any causative relation in the spread of phthisis, bring us to a debatable ground where all the chances must be taken in favor of the patient.

Tubercle bacilli require a temperature of from 86° to 186° F. The spores of the bacilli (each bacillus contains from one to four) are more tenacious of life and bear great extremes of cold and heat: they are killed at 212° F.

Dr. Handford (*Brit. Med. Journal*, March 6) tracing the phthiisical sputum from the lungs, finds that the bronchi, trachea or larynx not unfrequently become inoculated. Also if the pus be inhaled by some sudden disturbance of the respiratory movements, and carried into the other, or into an as yet healthy part of the same lung, a fresh centre of tubercle may be set up. For this there is no remedy. [It suggests, though, the employment of atomized germicides, such as iodoform dissolved in ether, etc., but it has not been demonstrated as having deeply penetrated.] So, also, sputum swallowed may inoculate the intestine. If the sputum be ejected on the ground it will dry up and the bacilli die, but the spores will remain active and are capable of reproduction.

Sputa received into vessels in the sick room should be continuously disinfected by first putting a disinfecting solution in the vessel to be used. For this purpose 5 per cent. solution of carbolic acid may be used [but there are many better and not so strong smelling]. Sheets and bed-clothing and personal clothing soiled with sputum

can be cleansed by boiling water. There is no doubt this whole subject is a very important item in the growing study of prevention.

THE NITRITES AS TENSION-DEPRESSANTS.—An abstract of a paper read by Dr. D. J. Leech, at the last annual meeting of the British Medical Association, appears in the January (1886) *Therapeutic Gazette*, showing the resources we have in drugs of the class above mentioned. The nitrites include nitro-glycerin, nitrite of amyl, nitrite of ethyl and the alkaline nitrites. The influence of amyl nitrite on the pulse commences immediately after its inhalation, and continues for twenty minutes or half an hour. Its very marked tension-reducing influence never lasts more than one and a half to two minutes. Of course it varies in different persons, and their susceptibility should be tested before venturing on anything like a full dose; this may be considered the rule for all the drugs under consideration. Nitrite of ethyl depresses tension for a much longer time than amyl nitrite. Seven or eight minims of pure ethyl nitrite will usually keep the tension distinctly depressed for at least forty-five minutes—in some people for rather more than an hour, and the circulation is often influenced during the whole of the second hour after administration. The depression of the tension is not so great as that produced by amyl.

Nitro-glycerin acts more quickly and more powerfully than nitrite of ethyl, and its effects are more prolonged. A single drop of a one per cent. solution usually causes a fall in the pulse-tension in one and a half to two minutes, and in three or four minutes the fall is well marked. The blood-pressure continues low for about ten minutes, sometimes a little longer, and in half an hour may be normal. But oscillations commonly take place and the normal standard is not usually perfectly attained for an hour or an hour and a half. The alkaline nitrites produce but little influence on pressure for from six to ten minutes, but then depress it strongly for two and a half hours, and act altogether for between four and five hours.

The anæmic, and those of weak circulation are usually powerfully affected by tension-depressants; those who have a high arterial tension are not so easily influenced. The benefit derived from Dr. Leech's researches shows us that we have the power to depress the arterial tension for any time we like—from a few seconds to a few

hours, and when we consider the advantages which accrue in certain conditions from lowered tension, it is manifest that we have acquired almost a new therapeutical power.

THE TREATMENT OF OLD CORNEAL OPACITIES.—In the last number of Graefe's *Archiv für Ophthalmologie*, Dr. Dantziger advocates the treatment of opacities of the cornea by friction performed daily, and continued for two or three months if necessary. When the opacity is of moderate size, but of considerable density, it is recommended that it should first be scraped away, and the friction, or "massage," commenced as soon as the epithelium has been reformed. The scraping is performed with a Graefe's knife, used in the manner in which one scrapes away a blot with a penknife. Antiseptic precautions are used, and iodoform is applied as a dressing; cocaine produces sufficient anæsthesia. Atropine and warm fomentations are used if the reaction be very great; by the fifth to the eighth day the epithelium has generally been reproduced, and the "massage" is then commenced. A minute piece of Pagens-techer's ointment is introduced, and the upper lid is then moved from side to side over the cornea with the forefinger, with a rapid to-and-fro movement, for about half a minute. Some hyperæmia is produced, which should not last more than a few minutes; if it last as long as half an hour, the treatment must be used cautiously, and may have to be abandoned. The author gives a detailed account of ten cases, in four of which the friction was preceded by scraping. With the exception of three all were opacities which had existed in a stationary condition for more than three years, and in all except one (in which the old cornea presented a greyish opacity) there was a very great improvement in vision, sometimes without any obvious clearing of the cornea. An improvement from $\frac{20}{200}$ to $\frac{20}{50}$ in 3 months would, perhaps, about represent the average result of the cases, but in some it was much better. Those who know how very intractable these cases are under ordinary treatment, will welcome any method which offers a reasonable prospect of ameliorating their condition; and should these results be borne out by wider experience, a very valuable addition will have been made to the resources of ophthalmic surgery.—*British Medical Journal*.

POISONOUS POLISHING PASTES are now much used by housekeepers in brightening brasses, and a word of caution is needed. The general composition of these pastes is emory powder, cyanide of potassium and petrolatum.

SUPPOSITORY FOR HEMORRHOIDS.—Dr. Martin, of Paris, uses the following in hemorrhoids :

Antipyrin	38 grains.
Cocoa butter	150 grains.

Make five suppositories : two or three in twenty-four hours.—*Revue de Thérapeutique.*

ESSENTIAL QUALITIES FOR THE STUDY OF THERAPEUTICS.—For the successful study and profitable pursuit of clinical therapeutics there are three mental qualities which are essentially necessary ; they are (1) absolute openness of mind ; (2) what is almost the same thing, absolute freedom from prejudice ; and (3) insight. Probably no physician ever reached great eminence in his art without the latter ; it is the most precious of all gifts, and one which we should early attempt to cultivate. It is the power of penetrating through phenomena and divining their causes and meaning ; the power of at once distinguishing the real from the unreal, the semblance from the real ; the power of distinguishing deceptions of all kinds, conscious or unconscious. I found a short time ago, in one of my note-books, the following story, the source of which I have, however, forgotten : “An old Scotch minister was awakened out of his sleep to go to see a great lady in the neighborhood, who was thought to be dying, whose mind was in dreadful despair, and who wished to see him immediately. The old man, rubbing his eyes and pushing up his night-cap, said : “And when were her leddyship’s bowels opened ?” and on finding, after some inquiry, that they were greatly in arrears, he said : ‘I thoct sae. Rax me ower that pill-box on the chimney-piece, and give my compliments to Liddy Margaret, and tell her to take those two pills, and I’ll be ower by-and-by myself.’ They did as he bade them—they did their duty and the pills did theirs, and ‘her leddyship’ was relieved.” This, gentlemen, was insight ; this was truly clinical therapeutics.”—*Introductory Lecture by Dr. Yeo—The American Practitioner and News.*

NATIONAL SANITARY CONVENTION.

The "Preliminary Announcement" is out for a Sanitary Convention to be held in the city of Philadelphia, on Wednesday, Thursday and Friday, the 12th, 13th and 14th of May, 1886, under the auspices of the State Board of Health of Pennsylvania. Address of welcome by Hon. Robert E. Pattison, Governor of the State. There will be discussions by prominent sanitarians on twenty-nine subjects relating to public health.

The Chairman of Committee of Arrangements is Dr. Joseph F. Edwards, 224 S. 16th St., Philadelphia, Pa.

OBITUARY.

AUSTIN FLINT, M.D., LL.D.

The profession will learn with profound sorrow of the sudden death, on Saturday last, of Dr. Austin Flint. This sad event took place at his residence in New York as the result of cerebral hemorrhage.

Dr. Flint had been in his accustomed health, and had attended a meeting of the Faculty of Bellevue Hospital Medical College on Friday evening. Upon returning home, he retired to bed, apparently as well as usual. Toward midnight he complained of severe pain in his head. The symptoms of cerebral hemorrhage rapidly developed, and he soon became unconscious. Drs. Austin Flint, jr., and E. G. Janeway were at once summoned, and on Saturday morning Drs. Isaac E. Taylor and W. T. Lusk were added to the consultation. All remedial measures, however, proved unavailing. Dr. Flint's vital powers slowly ebbed, consciousness did not return, and at 2 p. m. of that day he died.

Dr. Flint was born at Petersham, Mass., on October 12, 1812, of a lineage honorable in medicine. His great-grandfather, Dr. Edward Flint, practised at Shrewsbury, Mass., his grandfather, after whom he was named, was a private and afterward a surgeon in the Revolutionary Army, and died at Leicester, Mass., in 1850, at an advanced age; and his father, Dr. Joseph H. Flint, was a distinguished surgeon, residing at Northampton, Mass.

After pursuing his collegiate studies at Amherst and Cambridge, Dr. Austin Flint began his medical studies at Harvard, and received his degree from that school in 1833. After practising for three years at Boston and at Northampton, he settled in Buffalo, and by his numerous and valuable contributions to medical literature he

rapidly rose into professional prominence. In 1844 he was appointed to the Chair of the Institutes and Practice of Medicine in Rush Medical College, Chicago; but he held the position for only one year. In 1846 he founded the *Buffalo Medical Journal*, and during the ten years of his editorship it was conducted with marked ability and success. In 1847, in conjunction with Prof. James P. White and Frank H. Hamilton, then of Buffalo, he founded the Buffalo Medical College, and he filled the Chair of Medicine in its Faculty until 1852, when he accepted the Chair of Theory and Practice in the University of Louisville. In 1856 he returned to Buffalo and again became connected with the Buffalo school. The winters of 1858 to 1861 were passed in New Orleans, Dr. Flint having accepted the Chair of Clinical Medicine in the New Orleans School of Medicine.

In 1859 Dr. Flint removed his residence from Buffalo to New York City, and shortly afterward he was appointed to the Chair of Pathology and Practical Medicine in the Long Island College Hospital, and this position he held until 1868. In 1861 he was appointed to the Chair of Medicine upon the organization of the Bellevue School, as well as Visiting Physician to Bellevue Hospital. In 1872 he was elected President of the New York Academy of Medicine, and in 1883-'84 President of the American Medical Association.

Dr. Flint's contributions to medical literature were numerous and valuable. In 1852 he published his "Clinical Reports on Continued Fever," and in the same year the American Medical Association awarded to him a prize for his essay "On Variations of Pitch in Percussion and Respiratory Sounds, and their Application to Physical Diagnosis." In the following year he wrote his clinical reports on dysentery and on chronic pleurisy. All of these papers were translated into French, and reprinted at Paris in 1854. In 1856 he published his "Physical Exploration of the Chest and the Diagnosis of Diseases Affecting the Respiratory Organs," which has passed through two editions. In 1859 his "Practical Treatise on the Diagnosis, Pathology, and Treatment of Diseases of the Heart" was issued, and in 1870 a second edition appeared.

The work, however, which added most to his reputation as a medical author was his "Treatise on the Principles and Practice of Medicine," which appeared in 1866, and which has passed through five editions. It at once took a high position, and became a favorite text-book in all the medical schools of the United States. In addition, Dr. Flint has also written a work on "Clinical Medicine," a volume on "Phthisis," essays on "Conservative Medicine and Kindred Topics," and a "Manual of Auscultation and Percussion." He contributed the articles on "Pulmonary Phthisis," and on "Neuroses of the Heart," to the "System of Practical Medicine by American Authors." In addition, he has been a voluminous contributor to periodical literature, and the pages of *The American Journal of the Medical Sciences*, and of *The Medical News*, were frequently enriched by the labors of his pen. The last elaborate

article which he published was on "The Mitral Cardiac Murmurs," and appeared in the January number of *The American Journal of the Medical Sciences*.

Dr. Flint's life was characterized by unwearied activity and useful labor in his profession. As an author, teacher and practitioner, he was alike eminent. As a friend, counsellor and collaborer, he was universally beloved and respected. He possessed a fine presence and amiable bearing, and his kindly face and benevolent smile will remain indelibly impressed upon the memory of all who knew him.

Of the loss which the profession has just sustained it has been well said: "His death leaves a great gap in the ranks of the profession; but those who knew him only as a physician, knew him very imperfectly indeed. To a mind of singular breadth and wisdom, accustomed to rest its judgments upon an enormous range of experience and of knowledge, we united in his professional career the warmest sympathies and the most generous appreciation for everything that was good and beautiful. His heart was as large as his intellect was comprehensive, and the gracious gentleness and dignity of his nature adorned and rounded out a character of exceeding completeness and loveliness. We have never known a better, nobler, or a more useful man, and we bid him the last farewell with the feeling that the world is more barren and life less fruitful now that he is gone."

His widow and his son, Dr. Austin Flint, jr., survive him.—*Medical News*.

READING NOTICES.

Cort F. Askren, M.D., of Coryden, Indiana, writes: "Am using Mellier's Standard Buggy-Case, and consider it the neatest, most durable and most convenient article of the kind that I have ever seen."

—(o)—

Acid Mannate is the most palatable and painless aperient—it is indispensable as an aperient for women during pregnancy.

Huntsville, Ill., July 28, 1885.

A. R. ALLEN, M.D.

—(o)—

Mr. Chamberlain:—Dear Sir:—I am very much pleased with the Water-Closet Seat. I think it a great invention, and yet so simple in its construction. I have been a long sufferer and can well appreciate the beneficial results of the use of this Seat. Wishing that you may meet the success that you so well deserve, I am yours respectfully,

Greenville, N. C.

SAMUEL M. SCHULTZ

NORTH CAROLINA MEDICAL JOURNAL.

THOMAS F. WOOD, M. D., Editor.

Number 4. Wilmington, April, 1886. Vol. 17.

ORIGINAL COMMUNICATIONS.

CLINICAL LECTURE.

By Professor THEOPHILUS PARVIN, M.D., of Philadelphia, delivered
in the Hospital of the Jeffersonian Medical College.

VENICAL IRRITABILITY—RETROVERSION OF THE UTERUS—CARCINOMA UTERI.

I have no operations to perform to-day, gentlemen, and I do not know whether I am glad or sorry, but such is the case. I know that you like to see operations, but at the same time, when I have operations to perform I notice that a good many of you slip out before the hour is over, when my back is turned, and as I want you to remain, I am rather glad that I have no operations. I did have a very interesting case of laceration of the cervix uteri and of the perineum, with growths from the rectum, that I had expected to operate upon to-day, but, as luck would have it, she happened to be here the other day during a clinic, and when she saw one of the patients who had been operated upon carried from the lecture-room to the wards, she was so frightened that she has abandoned us and gone to the German hospital

for operation. In the first case that I bring before you (this woman who is troubled with vesical irritability) we have a demonstration of what I have told you in my didactic lectures in reference to the influence that injuries during childhood will have upon the future development of the pelvis and their consequent influence upon the process of parturition. When this woman was a child she received an injury to her hip from a fall; as a consequence the limb of the injured side is four inches shorter than its fellow of the opposite side. So, also, as a result of this injury there has been an arrest of development of the pelvis on that side. Well, this woman married and became pregnant; owing to the deformity of her pelvis her labor was a very difficult one, and it was necessary to resort to instruments. After this labor commenced the irritability of the bladder, for which she now seeks our advice. I would say to you, on general principles, that there is hardly any symptom of uterine derangement that you will find so commonly present as disturbance, as irritability of the bladder. As a rule, an irritable condition of the bladder is the result of some uterine derangement, it may be of congestion, or of descent, or of displacement or flexion. Well, now, this woman was well, and knew no sorrow until after her confinement; but immediately after that all-important event she had an abscess, about the size of the end of my thumb, about the neck of the bladder, which, after a while, opened into the bladder. Now, I will pass this uterine sound into the bladder, which I do for several reasons. In the first place, I believe I will be thereby able to tell if there is any urethritis, for if I find the urethra abnormally sensitive to the passage of the sound, I will know that it is inflamed. By this means I can also ascertain whether there is any cystitis, and I can determine the presence or absence of any foreign bodies. If, when I press the sound, she does not evince suffering, and you see that she does not, then I know that the urethra is not inflamed; if I can penetrate for four or five inches into the bladder, by gentle pressure, yet cause no suffering, and if such penetration does not produce spasmodic contraction of the bladder, then I know that there is no cystitis. You will notice that I do not smear the sound with vaseline, and this I wish you to particularly note; of course, I lubricate the instrument, but I use iodoform ointment, and this is a point of great practical importance. You cannot be too careful in these cases not to introduce septic germs into the bladder or parturient canal. You must be extremely careful to have your instrument thoroughly clean, that is to

say, surgically clean (for you must recognize the great distinction between ordinary cleanliness and surgical cleanliness) or else you may be the innocent cause of setting up a severe cystitis. I have a great liking for iodoform, and this penchant of mine sometimes causes me some annoyance. The other day, just after leaving a patient where I had used iodoform, I went into a barber-shop. As soon as I had seated myself in the chair the barber, with a smile, said: "Ah! sir, I observe that you have just come from a drug store." Well now, I have pressed this sound in for an inch and you see that the woman gives no evidence of pain; now, as I proceed, I elicit a spasmodic contraction of the neck of the bladder; by gentle pressure I get past the neck and go on well into the bladder, without causing any pain or contraction of that viscus. Therefore I know that the woman has not general cystitis, but that the irritated point is located about the neck. There is some kind of a secret about this somewhat unusual condition; I had thought that I would find a cystitis which had been produced by the introduction of a catheter at the time of her labor, for, as I have told you, this is a very frequent cause. I would lay down the rule that when you are called upon to use the catheter in a parturient woman you should always thoroughly disinfect it, and, instead of fumbling around with your fingers to find the meatus, you should, if you cannot strike it easily, expose the parts rather than run the risk of poisoning the woman by excessive manipulation with fingers that may not be surgically clean. These precautions are especially to be observed if there be even the least bad odor to the lochial discharge, for, in that event, we have a condition of the system that makes it particularly susceptible to septic influences. The mucous membrane of the parturient outlet is in an exceedingly sensitive condition at this time, and if, by our manipulation, we bruise it, which we are very apt to do, we open up new avenues whereby septic germs may gain access to the system. Now, I will carry my examination further, and see if I can discover any cause for the first access and for the fact that similar abscesses have every now and then occurred subsequently. I send the woman out of the room because I could not speak very freely before her. She is a sensitive, refined woman, and we cannot freely discuss these subjects before such women. One cause, and not an uncommon one, of abscess about the neck of the bladder is coition. When I questioned this woman outside, before the clinic, I learned that coition is always painful, each act is attended with so much

suffering that were it not for her dutiful desire to gratify her husband and her own, as well as her husband's desire to have children, she would not submit to sexual intercourse. Well now, I will tell you that coition under such circumstances will sometimes cause abscess; having made this statement, let us inquire into the *modus operandi* by which they are produced. Here we have an irritable bladder dependent upon an inflammation at its neck. We have also a retroversion of the uterus, and this organ pressing down on the vagina so lessens its calibre (that of the vagina) that when the swollen penis is introduced there is not room to accommodate it, and as it advances it impinges on the neck of the bladder, which has been dragged downwards by the uterus, which is somewhat prolapsed. In other words, there is not room for the penis unless undue violence be used in its introduction. We will, of course, sometimes encounter cases of irritable bladder that are purely nervous in their origin, where there is absolutely no lesion to account for the condition—they are pure neuroses, and it is obvious that we should make the distinction between those cases of irritable bladder that are purely nervous and those that have a substantial lesion for their causation, because the treatment in the two conditions will differ materially. Sydenham tells us of the hysterical woman who, one hour after he had completely emptied her bladder, passed fully a pint of pure water, as pure as that from the rocks, he says; now, we would say as clear as spring water. But in this case there is no such element, the woman is not hysterical, and we have been able to make out a definite cause in the inflamed state of the neck of the bladder. Now, we have carefully examined the case from all points of view, and I feel quite confident that we have a very clear conception of the nature of the trouble that causes this poor woman so much uneasiness. Well, then, having made our diagnosis, what can we do to relieve her? She is a sensible woman and is anxious to get well; therefore I will advise her to avoid coitus for sometime, as this is evidently the exciting cause of the trouble. In addition to this we will use counter-irritation to the vaginal surface of the urethra, in the hope of thereby relieving the congestion about the neck. We will use hot water injections for their antiphlogistic virtue, and we will replace the uterus and endeavor, by appropriate measures, to retain it in its proper position. She has had five or six miscarriages; which I at first thought might have been self-induced, and that this procedure had aggravated the trouble. This is a contingency that

you must take into consideration in these cases. But I have abandoned this idea since I have learned how anxious both she and her husband are to have children. We will, as I have said, replace the uterus and endeavor to reduce the congestion by injections of hot water and also by the use of tampons of glycerine. If we had her here in the hospital, or if she would remain in the house, great good would be derived from stretching the neck of the bladder enough to allow the introduction of the little finger, or even of the forefinger. Dr. Emmett argues against the expediency of dilating the neck for vesical irritability, urging the evil of the incontinence which therefrom results. But I do not agree with him, and I am satisfied that we can safely dilate to the extent that I have indicated, and that it will result only beneficially. Therefore if, in this case, the other means that I have recommended fail to relieve the trouble, we will try the effect of stretching the neck. It makes no difference if the urine does trickle away for a few days, we will accomplish the great result of putting the parts at rest. The rest cure is a great cure for nearly all conditions of disease, and it is a form of cure that has not been sufficiently appreciated. When the surgeon has to manage a broken bone, what element of his treatment does he consider the most important? Why, rest, of course. So I claim that rest is equally as important and as efficacious in the treatment of the disorders of women. Let us afford rest to the part and solicit nature to work the cure. I always remember the remark of the great Ambroise Paré: "I place the part at rest, but God cures it." After all, it is a fact that all cures are effected by nature, that is by God, for we cannot separate nature from Him; nature is not the first, but the second cause of all that is and all that occurs. I need not remind the student of Latin that the word *natura* signifies something that is produced and not in itself a producer. Thus, then, by the means I have indicated you will succeed in relieving these distressing and annoying cases of vesical irritability.

RETROVERSION OF THE UTERUS.

The second patient that I have to show you is a woman aged forty nine, who has had three children, the last one six years ago; she has had no miscarriages. When I ask her about her history, she says that she has never been well since her first confinement. The second child was born one and a half years after the first, and

the third followed the second in one year and five months. So you see she has had three pregnancies, following each other in rapid succession, and she tells us that she has nursed all of her children. She was thirty-two years old when her first child was born, and this fact causes me to speak of her as having been an old primipara. I believe that it is customary in fashionable society never to call a lady old as long as she is a *miss*, but this rule does not hold good in obstetrics, for at thirty we would say that a woman was an old primipara. Now, in connection with this fact, I want to call your attention to the circumstance that the duration of her first labor was only seven hours, whereas we are accustomed to say that the duration of labor in a primipara is usually twelve hours. She tells us that her chief complaint is pain in the back and in both sides, but most marked on the right. Now, I ask her if any position she may assume will afford relief to this pain in the back, and I want you to listen carefully to her answer, and note it well, for there is something very significant in her reply. She says that when lying down she will frequently stuff a pillow into the small of her back, and that this affords relief. I ask her if anyone told her about this procedure, and she answers no, that she just did it of "her own accord." Well now, you know that instinct will cause a dog to eat grass under certain circumstances, and so also will instinct often direct the movements of the higher animals and direct them so correctly that we can often derive a deal of information from these instinctive acts. From this instinctive effort to afford some artificial support to the back, we must needs infer that there is some extreme pressure on the back, and so, in truth, there is, for it is usually in cases of retro-flexion where the uterus is pressing down on the sacrum that we find the women stuffing pillows under their backs. This woman tells us that her menstrual periods are regular, but that she has some discharge, some leucorrhœa, or, as she tersely puts it, the "whites." By-the-way, never ask a patient, even among your most intelligent ones, if she has "leucorrhœa," for if you do she will not understand you, she will think you are talking Sanscrit, or some other dead language, and may possibly give you a misleading reply rather than admit her ignorance of the nature of your query. On the other hand, all women know what you mean when you ask them if they have the "whites," and I would therefore advise you to confine yourself to the more homely, but more univer-

sally understood term. I find that this case has been put down on the register as one of laceration of the cervix. Well, in a measure, this is correct, there is, no doubt, a laceration, but there must also be some further trouble behind and beside this to account for the symptoms she presents. She has a copious discharge, which really means that there is a uterine catarrh, and I would here say that I think it is best to call all non-sanguinolent discharges from the uterus uterine catarrh. This is simply a hyper-secretion. I remember years ago, when I was passing through my examination for the degree of M.D. (and I suppose that at this time of the year many of you have a peculiar interest in these examinations), one of the professors asked me as to the effect of irritation on secretions. When the irritation is but slight in degree it merely produces an increase of secretion, while when it is more severe it not only causes this increase, but it also produces a perversion of the secretion. In this case the discharge is like the white of egg, from which we infer that it comes from the uterus, for if it was from the vagina it would be more milky in character. A woman with uterine catarrh does not usually have a vaginal leucorrhœa, but let her walk for several squares and she will find her garments soiled with a discharge that has come from the vagina and has been caused by the irritation of walking. Now, at times this discharge is yellowish and contains pus, which occurs when the grade of irritation is temporarily higher, and, as I have said, as a consequence, the character of the secretion is perverted. The laceration will not account for all the symptoms, and the fact that there is uterine catarrh indicates to us that there is inflammation, or at least congestion of the uterus. If this discharge were thin and watery, then I would say that it came from the cavity of the uterus, but, as it is thick and sticky, we know that it comes from the cervical canal. A still further test of the origin of the discharge could be made by the use of litmus paper, if it was found to be alkaline, then we should know for sure that it came from the cervix. Well, now, she further complains of this pain, which Dr. Matthews Duncan has so aptly called *Sacralgia*, not a very euphonious, but at the same time a very expressive word. It is a girdle of pain, as it were, starting in the small of the back and passing nearly around the body. Now, this pain means that there is most probably a posterior displacement of the uterus. You know that the utero-sacral ligaments play a very important part in

keeping the uterus in its normal position, and while these ligaments maintain their integrity the uterus cannot become displaced, but when, through their relaxation, the fundus of the uterus falls backwards and the cervix is in consequence tilted forwards, there must be, as you can readily comprehend, a stretching, a tension of these that will cause this pain. But in addition to this sacralgia, there is also pain in front, in the right and the left. How can we account for this? Very readily, by supposing that this uterus is dragging on the round and broad ligaments. When a patient comes to you complaining of such pain you can rest pretty well assured that you have to do with either a prolapsed or a retroverted uterus. Well, then, we have satisfied ourselves that this woman has retroversion. Now, this condition might be overlooked in the laceration. She might go to a doctor, who, discovering the laceration, and supposing it to be the cause of all the trouble, would operate on it. This operation might have the effect of lessening the catarrh, and it would most likely do so, owing to the combined influence of the rest which the operation would entail and the depletion which the escape of blood during the operation would entail, thus reducing the congestion. But in a short time the catarrh would be as bad as ever, because the operation would not radically remove the cause. It will sometimes happen that an operation for laceration of the cervix will cure a retroversion, and that the uterus will hereafter maintain its normal position. This result I would ascribe to the setting up of an inflammation in the utero-sacral ligaments, as a consequence of which they contract, thus drawing the cervix backwards and tilting the fundus forwards. But while this does occasionally occur, yet I would advise you not to count on it, for if you do you will be frequently disappointed. It is not enough merely to operate on the laceration; in fact, I doubt very much whether such an operation would be advisable in this case, where the laceration seems to be producing comparatively so little inconvenience. We will place the woman on her left side and draw the uterus downwards, then draw the cervix backwards and endeavor to keep it in position by a pessary. We will also resort to injections of hot water to reduce the congestion, paint the cervix with Churchill's iodine, and use tampons of glycerine. If the catarrh persists, then we will operate. I speak as I have about the operation for lacerated cervix to put you on your guard, for there are some who seem to

think that this operation is a sure cure for all the ills that woman-flesh is heir to. Baker-Brown, of England, who was, in his day, one of the greatest of gynecologists, grew gradually to believe that all the troubles of women, of a nervous nature, were due to the clitoris, and he commenced a crusade against this organ. He would preserve the clitoris from all his patients, young or old, married or single, until he had as great a collection of these little organs as the butcher has of similar organs from cattle; he became wild on the subject. As a result he was ignominiously expelled from the Obstetrical Society of London, and died a paralytic, poor and in seclusion. Such cases should warn us against hobby-riding, against allowing any theory, however plausible it may seem, to absorb or reason, against considering any operation a panacea. Baker-Brown was disgraced for his one-idea views. I fear that the profession are tending in the same direction now with reference to another organ of the female economy, that is being used to account for all variety of nervous disorders. I have recently read a work wherein the author says that it would seem as though the profession was rapidly growing to regard laparotomy as the panacea of gynecology, and he says that he believes the day is not far distant when the removal of a sound ovary for the cure of hysteria, epilepsy, insanity and allied diseases will be considered as unjustifiable and as criminal as is clitoridectomy.

CARCINOMA UTERI.

The last patient whom I shall show you to-day is sixty-three years old, and she tells us that she was married at thirty-seven. She has had one child and no miscarriages. This is a fact worth noting, because the law is that the disease with which I presume she is suffering is a disease of those who are over-fertile, whereas this woman's fecundity has been below the average. Her menses ceased suddenly when she was fifty years of age. She has had the whites for a long time. About three months she commenced to have, at frequent intervals, a bloody discharge, which comes on irrespective of any effort or labor on her part. She loses some blood every day, enough to weaken her considerably, and she is losing flesh. She has pain in her back, which, I learn, is not at all influenced by the hæmorrhage. The discharge has no bad odor. Now, I am not quite sure from this history, yet I rather expect that when I make a

vaginal examination I will find some diseased condition of the cervix. Well, now, I was wrong in my assumption; the cervix is normal; I find the os considerably dilated and within it there is a little nodule on the side of the cervix. The uterus is large and firmly fixed, but the peculiarity of the case is that the disease is located inside of the uterus. This is very rare, for carcinoma usually begins in the cervix. The inflammatory condition may be a barrier to the progress of the disease. Now, I am not positively sure that this disease is malignant, though I think it is, and I am inclined to think that this growth within the os should be removed. From the general appearance of this woman, from her wasting and the obvious symptoms that offered, I thought, before I made the vaginal examination, that we had a case of cervical carcinoma. If it had been epithelioma there would have been a watery discharge in the intervals of the hæmorrhage, but there was none here. I would like to explore the interior of this womb. I must say, gentlemen, that while I have all due respect for, yet I am not inclined to place implicit faith in the verdict of the microscope, and I would very much prefer to base my opinion upon the clinical history of a case. Many of you are not expert microscopists, and I would advise you to trust largely to clinical history. I can well remember a case where an expert microscopist pronounced a certain growth cancer, yet the patient continued to live in comfort for years, and I can equally well recall a case where an equally expert microscopist said it was not cancer, and the patient died of malignant disease in six months. In this case, since the obvious symptoms all proclaim cancer, I would say that it would be well to curette away some of this growth and have it examined, and then if the microscope coincides with the clinical history, I think you can be quite sure of your diagnosis.

INDUCED EPISTAXIS IN HEADACHE.—According to Coiffier, in congestive headache nothing secures relief so quickly as induced epistaxis. To produce free nose-bleed, proceed as follows: Cut a little piece of mustard paper, dip it in water, roll it up mustard-side outward, and introduce it for a few moments into the nostrils. Slight local abrasion will then readily induce the requisite bleeding.—*Canadian Practitioner.*

THE TREATMENT OF ULCER AND CANCER OF THE STOMACH.

By Prof. DUJARDIN-BEAUMETZ. Translated by Dr. E. P. HURD,
Newburyport, Mass.

(Continued from March JOURNAL.)

Therapeutics.—Your therapeutic path, then, is plain. Are there only vague surmises of cancer? You ought to employ remedies addressed to the disease which has the greatest resemblance to cancer; I refer to chronic ulcerous gastritis. Here all the rules which I have laid down under the head of dilatation of the stomach are applicable; lavage and medication of the gastric mucosa; alimentation by milk and meat powders; such will be the basis of your therapeutics. But you may say in the event of the case being one of genuine cancer, instead of chronic ulcerous gastritis, may not your treatment do harm? None at all, and the lavage and dressings of the stomach cannot but be beneficial. According to the real nature of the lesion, you will see gradual and sure amelioration under the influence of your treatment. Supposing the patient to be effected with simple ulcerous gastritis and that he rigorously follows your directions. If the disease be cancerous you will often have the good fortune to note an improvement which will last a certain time, but it will be but temporary, and despite all your efforts the individual will succumb.

We will now examine what are the therapeutic means to be employed when the cancer is situated at the pylorus, then when it is seated at the cardia, and, lastly, at some part of the walls of the stomach occupying a greater or less extent of surface.

Cancer of the Pylorus.—Cancer of the pylorus is much the most frequent,* by reason of the obstacle which it presents to the

*Gussenbauer and Winiwarer have shown that out of 903 cancers of the stomach 542 were limited to the pylorus. Of this number 223 were without glandular engorgements, and 122 without adhesion to neighboring parts. Lederhouse has given similar statistics. Out of 60 cases 39 were of the pylorus and in 25 there were cancerous nodules in the organs. (Gussenbauer, Arch. de Langenbeck, Bd. xix p. 347.)

passages of the alimentary substances from the stomach into the intestine, it is certain to cause dilatation of the stomach and rapid emaciation. The dilatation, despite the presence of cancer, is tributary to lavage, which enables us to cleanse the mucous membrane and free it from sources of irritation which result from the prolonged sojourn of aliments; lavage, therefore, should be practiced in most cases of cancer of the pylorus. As for the troubles of nutrition, you can, in a certain measure, remedy them by alimentary lavements, and the only lavements which can serve for nutrition are, as I shall show you farther on, peptonized lavements; it is, then, to these you should have recourse, and by their means and frequent lavages you will be able to prolong the life of your patient.

Cancer of the Cardia.—The cancer may be seated at the cardia, and here the conditions are different. The stomach, instead of being dilated, presents its walls in close contact, and it is the inferior part of the œsophagus which is dilated. We have at our disposal to overcome this barrier which opposes the descent of the alimentary bolus into the stomach only two therapeutic means: 1. The administration of liquid food, and here the meat powders render us great service, owing to the homogeneous mixture which they make with liquids; and 2. The peptonized lavements of which I have just spoken.

Catherization and dilatation of the stricture by bougies of progressively increasing size have also been advised. It is necessary to be very prudent in the employment of these manœuvres. It has often happened that, in the attempt to force the œsophageal sound through the stricture, the œsophagus, thinned at its lower extremity by the dilatation of which it is the seat, as well as by the carcinomatous lesions affecting the substance, has been perforated. At the same time I would make exception of the method recommended by Krishaber, who has proposed to employ in such cases, and especially when the cancer is seated at the upper part of the œsophagus, a permanent sound, and who, by this means, was able for a year to keep alive several patients who, without this instrumentality, would have infallibly succumbed. This œsophageal sound, which is introduced by the nares, may be of a relatively small calibre, since by means of these handy alimentary mixtures of milk and

meat powders, we can feed the patient through quite narrow tubes.*

When the cancer is seated in other parts of the stomach our therapeutic indications will depend on the phenomena which are presented. When the vomiting is lacking (and here you should not forget the fact that there are a great many cases of cancer of the stomach, even with the presence of tumor, which have never been attended with vomiting, even at the most advanced periods of the disease) you ought to employ articles of food which require the least digestive action on the part of the stomach. First milk, then certain feculent powders, such as the flower of lentiles, cooked or malted, mixed with an equal quantity of meat powder. When the attacks of pain are very severe use injections of morphine, and if the abuse of these injections is to be feared in persons who do not present any great lesion of the organism, I do not see that it is any great harm if a cancerous patient becomes a morphiomaniac. Thanks to this incomparable anodyne, life is renewed, the pains disappear and you see after each injection a sort of resurrection effected in these cachectic subjects.

Recall to mind that patient who remained so long in our hospital, occupying No. 21 Ward St. Charles. This man had arrived at the last degree of cachexia, due to cancer of the stomach. He was virtually dying of starvation, the animal heat failing little by little, and finding no relief except in injections of morphine, which he said restored his temperature and his pulse and gave him every day a new lease of life. You saw in this case a clear example of the tonifying action of hypodermic morphia. Do not hesitate, then, to practice these injections and make them often enough to allay the pain, and do not fear to employ pretty large doses.

Other modes of treatment have been proposed for cancer of the stomach. The preparations of conium have been particularly vaunted, cataplasms of the leaves being applied over the epigastric

*Krishaber introduced by the nares a rubber or gum catheter. When the stricture is very close he begins by passing a firm gum sound, which he replaces in a few days by one of caoutchouc. Moreover, he shows that the œsophagus tolerates well the presence of a permanent catheter, and has published a series of observations of cases of cancer of the œsophagus where this sound has remained 305, 165 and 251 days, permanently left in place. (*Annales des Maladies de l'Oreille du Larynx*, 1882.)

regions and pills of the extract given internally. All these means have been tried and they have never, to my knowledge, cured, or even ameliorated, a single case, and therefore are hardly worth trying. I may say as much of other pretended specifics, such as cundurango and chian-turpentine.

It remains for me to say a few words about surgical intervention in the treatment of cancer of the stomach.

Surgical Means.—Emboldened by the unlooked for success which modern surgery has attained in abdominal affections, certain surgical authorities have proposed to interfere in malignant disease of the stomach, and have practised successively gastrectomy, gastrotomy and gastrostomy.

Gastrotomy.—Gastrotomy consists, as you know, in opening the stomach, and this operation has been performed of late, especially in order to remove from the cavity of this organ foreign bodies, and you are familiar with the interesting cases of Labbé and Telizet. It has also been lately proposed to practise this operation in order to penetrate the stomach and gain access to the pylorus for the purpose of dilating it with the fingers, and thus overcoming fibroid thickenings of this orifice, or cicatricial bands causing stricture. This digital dilatation has never been performed in France, and the most serious objection which can be made against it is the difficulty of accurately diagnosing the pathological condition requiring the operation.

Gastrectomy.—Practised for the first time in France by Peau,*

*Resection of the stomach was first attempted in animals. Merrien, in 1810 first conceived the idea of extirpating the pylorus, and Gunther practised it on two dogs.

In 1876 Gussenbauer and Winiwarter took anew these experiments and resected the pylorus in eight dogs. Kayser repeated these experiments and proved that one can in the dog resect the pylorus without death following the operation. Since then the operation has been 18 times performed in man.

Case 1—Torelli, Bologna, 1876. Man aged 42—hernia of the stomach—resection—cure.

Case 2—(Des tumeurs de l'abdomen, 1880, p. 79.) Man affected with cancer of the pylorus—death the fifth day.

Case 3—Rydygür, 1881. Man at 63—cancer of pylorus—death twelve hours after.

Case 4—Billroth, 1881. Woman of 43—carcinoma of pylorus—first cure, then return of disease after four months and death.

then in Germany by Billroth, Rydygur, Esmarck, Kitajewski, etc.; in Italy by Torelli, Gavazzini, and in Brazil by Fort, resection of tumors of the stomach, or gastrectomy, despite several successful cases, seems to me to be a hazardous and a very questionable operation in cancers of the stomach, and this for a number of reasons. Without expatiating on the difficulties of the operation, I will mention the two prominent causes of failure—the state of physiological depravation in which patients affected with cancer of the stomach necessarily are, and which operates against their rallying, will, after so severe and prolonged an operation, and secondly, the impossibility of affirming that there do not exist other tumors of a like kind in the deep parts of the abdomen. These are, I repeat, conditions which ought to render us little enthusiastic in advocating the extension of gastrectomy.

Gastrostomy.—It is not so with gastrostomy, that is to say, the establishment of a permanent opening in the walls of the stomach. This is a much more feasible operation; and one which has given numerous successes. Gastrostomy may be performed for two conditions, the operation being somewhat different in the two cases

Case 5—Billroth. Woman of 46—cancer of pylorus—death after thirty-six hours.

Case 6—Billroth. Woman of 38—cancer of pylorus—death at the end of ten hours.

Case 7—Billroth, 1881. Woman of 25—cancer of pylorus—recovery.

Case 8—Gavazzini. Woman of 57—chondrofibroma of stomach—recovery.

Case 9—Esmarck. Ulcer of stomach and gastric fistula—recovery.

Case 10—Bardenheuer, 1881. Cancer of pylorus—death the second day.

Case 11—Kitajewski, 1881. Woman at 52—cancer of pylorus—death at the end of 6 hours.

Case 12—Ledderhose, 1882. Woman of 33 years—cancer of pylorus—death at the end of ten hours.

Case 13—Czerny, 1882. Man of 27 years—cancer of pylorus—cure.

Case 14—Rydygur, 1882. Woman of 30 years—chronic ulcer with dilatation—recovery.

Case 15—Hahn, 1882. Dilatation of stomach—resection—death at the end of eight days.

Case 16—Langenbeck, 1882. Cancer of pylorus which was adhering to pancreas—death after the operation.

Case 17—Gussenbauer. Cancer of pylorus—death.

Case 18—Fort, 1882. Female cancer of stomach—first laparotomy, then, six months after, ablation of cancer—death a few hours after.

when there is a stricture of the œsophagus and cardia, and again, when there is an obstacle at the pylorus.

In strictures of the œsophagus, and when this trouble is imperious, gastrostomy is imperative, and you well understand how life may be prolonged thereby, through the establishment of a gastric fistula. The curious observations of Virneuil, who performed this operation on Marcelin, shows us all the advantages which may be derived from gastrostomy, and if in fibrous constrictions it does not always give good results, it is because the operation was performed at too late a period, and the patient, exhausted by prolonged abstinence, could not rally from the effects of the surgical traumatism.

I believe this operation perfectly indicated in cases of cancer of the cardiac and œsophagus. There are, in fact, cancerous affections which become grave, not by reason of extension of the lesion, but because they constitute an unsurmountable obstacle to the regular functioning of organs indispensable to life. A cancer of very trifling extent situated at the pylorus or cardiac will cause death by inanition, and you understand how easy it must be, by creating a new passage for the introduction of food, to prolong for several years the life of the patient. When the obstacle is seated at the pylorus surgical intervention of a different character is required. And gastrostomy consists in establishing a new outlet for the stomach which shall open, not externally, but into another part of the intestine.

Surmay, of Ham, has advised to make the opening into the duodenum, and he has performed this operation in my service on a young woman 24 years of age, affected with cancer of the pylorus.*

The operation proposed by Billroth seems to me to constitute a notable advance on the preceding. This operation consists in attaching a loop of intestine nearest the duodenum to the wall of the stomach, and in establishing there a communication between the

*Surmay has indicated the operative manœuvres which enable one to reach the third part of the duodenum, to open this portion of and fix it to the walls of the stomach. By this intestinal orifice peptonized aliments may be introduced into the intestine. This operation was performed June 19, 1879, on a young woman of 26, who presented a mobile cancerous tumor of the pylorus. The patient succumbed the next day, and the autopsy showed that the sound which had been introduced by Surmay was well placed in the first portion of the small intestine. (*Academie de Medecine*, 1878.)

two cavities, so that the stomach shall open into the intestine by a new pylorus. This operation does not involve the risk of loss of those fluids so necessary to the intestinal digestion, the bile and pancreatic juice, which continue to flow into the upper part of the intestine. This is the operation which you ought to perform whenever there exists an obstacle at the pylorus effecting, or nearly effecting closure, and for my part I have very much regretted that I did not resort to it in the cases where I had diagnosticated non-malignant stricture of the pylorus; the autopsy having shown my diagnosis to be true, I believe, moreover, in certain forms of cancer of the pylorus, without any cachectic symptoms, this operation is indicated; for leaving intact the tumor, it does not involve the grave risks of gastrectomy. Unfortunately, as in stricture of the œsophagus, we do not propose this surgical procedure except in the last stages of the disease, when the vital powers are low and the patient is ill able to withstand the sequels of the operation.

There remains, in order to complete my subject, only the consideration of the treatment of a "bilious" condition called gastric catarrh, but this, which is a sort of acute indigestion, is commonly associated with a general febrile condition, and properly belongs to the therapeutics of fevers.*

As you see, the treatment of stomach affections in general makes heavy demands on the physician. It claims of him profound clinical knowledge, in order that he may be able to appreciate and to group the different symptoms presented by the patient, and to understand their origin and their march; it requires also an extensive acquaintance with pharmacology, in order that he may be able to vary and change the different medicaments and appropriate them to each state; it demands, finally, a complete and thorough study of hygiene, in order that he may establish in a scientific and rational manner the bases of a regimen suited to each of the forms of dyspepsia. Add to all this the perseverance, the energy and patience indispensable for carrying out the prescribed treatment, and you will understand how necessary in the therapeutic management of affections of the stomach are the knowledge, talent and art of the physician.

In another series of lectures I propose to complete the study of the treatment of affections of the stomach by that of the therapeutics of diseases of the intestine.

*See Vol. III. (the American edition is entitled "Clinical Therapeutics," published by G. S. Davis, Detroit) Part III., "On the Treatment of Fevers."

(Concluded.)

ECTOPIC GESTATION.

By KENNETH M. FERGUSON, M.D., of Cameron, N. C.

In October last I met with a case of extra uterine pregnancy in the person of a colored woman about 35 years of age. Not having seen the case till long after the termination of a natural period of gestation, and long after the death of the fœtus. I am unable to say what form of extra uterine pregnancy it had been, but from the fact that the patient suffered no special inconvenience from her pregnancy, and at the end of a natural period of gestation labor pains came on, we naturally conclude that the pregnancy was abdominal. I first saw the case eight months after the termination of her natural period of gestation and her short, ineffectual labor. At that time she was extremely emaciated, unable to turn in bed and suffering greatly from bed-sores—a very natural consequence of six months confinement on a hard bed. About a week previous to the time I first saw her a small portion of hair was found in one of her stools. With the assistance of Dr. Turner I placed the patient in Sims' position and introduced Sims' speculum into the rectum. I found the cranial bones protruding into the rectum about four inches above the anus, the channel of extension which nature had selected. The scalp had sloughed from the top part of the head, bringing the saw-like edges of the cranial sutures in direct contact with the bowel. The head presented a globular appearance and that of a large, well-developed child. With a long, slender pair of placental forceps I had no particular difficulty in separating and drawing one of the cranial bones at a time through the opening in the rectum, which I had made larger; thence down and through the anus. In this manner I extracted all of the bones of the head and face. Then fastening my forceps on the scalp, lying in the opening in the rectum, I brought it through and down within reach of my fingers. Without further trouble, then I extracted the entire fœtus in one mass through the anus. The fœtus was considerably shrunken, all of its soft structures being changed into adipocire, the anus remaining unaltered.

The after treatment in this case consisted in the daily washing out of the bowel with an antiseptic solution and the administration

of syrup iodide ferri. Almost immediately she began to improve ; the fistulous opening in the rectum through which the fœtus was removed has healed perfectly. Notwithstanding the fact that this patient's chances for recovery had been almost entirely obliterated by the culpable neglect of her physician in removing the fœtus, and this was not the offspring of Providence, but the dictates of timidity and indecision. Yet, with the exception of the removal of the fœtus, nature has in some mysterious way borne her over this unfortunate epoch of her life and on to a safe and permanent recovery.

HOSPITAL NOTES—WILMINGTON CITY HOSPITAL.

(Read before the Wilmington Medical Society, April 13, 1886.)

Case 1—OVARIOTOMY—2. AMPUTATION SUPERIOR THIRD—3. AMPUTATION THROUGH THE KNEE—4. EXCISION RIGHT SUPERIOR MAXILLARY.—By W. W. Lane, M.D.

Mrs. M. J. G., of Smithville, N. C. ; married, 39 years of age, complexion brunette, has six children, the youngest 5 years ; says tumor commenced with small lump in right side about twelve years ago ; while carrying her last child suffered constant pain, and also more or less pain ever since. During the last fall had malarial fever, which confined her to bed for six weeks.

Admitted in hospital December 15th, emaciated and feeble, though free from organic disease. Was carefully examined on day of admission ; tumor large and uniform ; fluctuation distinct ; uterus $3\frac{1}{2}$ inches in depth, and rotated freely on sound ; rectal touch indicating no attachment between them.

An aspirating needle was passed into the upper part of the cyst wall, and a small quantity of brownish fluid withdrawn, which, examined under the microscope, proved to be ovarian.

There seemed to be a degree of firmness imparted to the hands in manipulating the tumor which conveyed to my mind the impression that it was either fibro-cystic, or that there were strong adhesions—the latter proved to be the case.

The patient had had menorrhagia for a long time, and was then

suffering from it. Examined again on the 21st, first diagnosis was sustained. Operation decided on, and time fixed—the 30th. The patient was anxious to be operated upon without delay, in order to return to her family as soon as possible. She was therefore put upon the elix. quin. iron and strychnia at once, with the warm bath, every two or three days, and the bowels kept free by an occasional morning dose of Rochelle salts.

Four hours before operating she had 10 grains of quinine, and a few minutes before the chloroform was administered a hypodermic injection of atropine and morphine was given—this, according to Prof. Chiene, of the Edinburgh University, having a very decided value in lessening the tendency to reflex inhibition of the heart-action.

On the 30th the operation was performed in the presence of several of the physicians of the city, and with their aid. The incision was $3\frac{1}{4}$ inches long. On exposing the tumor found it covered by the omentum, which was thick, fatty and very vascular, and strongly adherent to it, with also intestinal and mesenteric adhesions. On tapping with Wells' trocar it proved to be a unilocular cyst filled with a brownish fluid.

The pedicle was broad, rather long, the attachment extending across to near the left ovary, and required two sets of double silk ligatures; the stump was dropped back in the pelvic cavity. It was found necessary to ligate several bleeding vessels in tearing loose the strong and extensive adhesions.

The peritoneal cavity was thoroughly cleansed, and with warm sponges wrung out of a solution of bichloride of mercury 1 to 2,000, and parts well dried. The peritoneum itself was apposed with the continuous cat-gut suture, Thomas' glass drainage-tube having been previously inserted in the lower angle of the wound, after which the integument was united with silver suture.

The dressing consisted of several folds of absorbent gauze sprinkled with iodoform, upon which was laid a double layer of lint previously dipped in the bichloride solution and dried, then bats of carded oakum and absorbent cotton covered with a sheet of rubber tissue, and the whole well secured by a broad flannel bandage; the abdomen, however, having been well supported with wide adhesive strips extending nearly around the body. The patient suffered greatly for thirty-six hours from excessive nausea and vomiting, caused by the anesthetic, which was finally allayed by ice and aromatic spirits of ammonia.

There was no shock; twelve hours after operation the pulse was 110, and the temperature scarcely 100°. On the fourth day the discharge through the tube was profuse, of an offensive sanguino-purulent character; the dressings were so much soiled that it was found necessary to take off everything. I found the line of wound healthy-looking and healing kindly by the first intention.

The cavity was well washed out through tube by syphon syringe with warm carbolized salted water, temperature 100 2-5.

This free discharge continued for four days, the washings bringing away filthy clots and sloughs from lacerated omentum.

Patient doing well, temperature not going beyond 100 3-5 till the 9th day, when the discharge diminished very markedly; cavity irrigated with same solution, with addition of Labarraque's solution, offensive odor disappearing. During the day she complained of heat, the face flushed, temperature ran up to 102°, pulse 112, though there was no tympanitis, no abdominal pain or soreness, no anorexia, skin hot and dry. Gave two 5-grain capsules of quinine at intervals of six hours, there having been yet no action on bowels; gave an enema of suds, but with no result; at 9 p. m. the skin had become moist, the temperature had fallen to 99 3-5, feeling more comfortable. This condition owing, no doubt, to return of the malarial intermittent fever she has had for the last three months. Tenth and eleventh day pulse ranging from 91 to 105 and temperature from 99 to 101, very little matter rising in tube, but healthy pus welling up along outside of it, requiring frequent renewal of dressings; no doubt flow coming from abdominal incision; appetite fairly good; beef tea, milk-punch, corn-meal gruel, a few raw oysters. Weather very cold, 12° below freezing; quiet and cheerful, but complained some of dull aching in back and hips, from long lying in one position.

12th—No action yet from bowels; gave dose of castor-oil, followed by enema, with desired effect.

13th—Irrigated cavity thoroughly by syphon, using one gallon of same solution; some encapsulated matter came out through tube, laudable pus still coming up alongside of tube; in consequence of this thought it best to remain for the present, but removed the wire sutures; wound quite nearly healed by first intention; temperature 98 3-5 to 99 3-5; diet egg-nog, thin boiled hominy and butter, broiled beef-steak; feels comfortable.

14th and 15th—Temperature ranging from 99 1-5 to 100 3-5; cavity

irrigated; very little matter through tube; pus still oozing from incision; doing well; appetite good.

16th—After a final washing out, the tube was removed and the incision closed with pin and figure 88 thread; temperature 102 1-5, caused by another accession of malarial fever; bowels constipated; gave Rochelle salt and enema; no action.

17th—Bowels still persistently confined; gave castor-oil with only moderate effect; temperature 100 3-5 to 99 3-5; comfortable and good appetite.

18th, 19th and 20th—Doing well; temperature 98 to 100; lower end of incision still suppurating a little; diet, beef tea and hard biscuit, soft-boiled eggs and hominy, 5 grains quinine night and morning.

21st—Improving, though temperature advanced to 100 4-5, showing slight febrile movement; quinine continued.

22d and 23d—Temperature normal; pin and thread removed; appetite good; doing well every way, except constipation; suppuration from lower angle of wound; cheerful and gaining strength.

24th and 25th—Bowels opened by castor-oil; temperature normal.

26th and 27th—Sitting up; temperature normal; suppuration ceasing.

30th—Patient discharged cured.

One of the interesting features that present themselves in this case is the very low temperature that existed throughout the progress of the treatment, never having gone beyond 102 1-5, with pulse 112, and this, without doubt, owing to the malarial intermittent she had been suffering from all the fall, and which she still had when admitted in hospital. The latter seeming to travel along *pari passu* with the surgical disease, and apparently independent of it.

Even after twelve hours, when it is to be expected, from the effect of a severe surgical operation upon the nervous system, the temperature would mount to 102 or 103, it scarcely attained 100, and really the patient went on to convalescence with no pain or bad symptoms whatever, excepting those arising from the fever and the weariness of lying in one position.

The causes that probably may be said to have led to a successful result in this case may be thus stated: Before the operation: 1. The confidence the patient expressed herself of that the doctors could cure her. 2. Her strong desire to have the operation performed. 3.

Thorough preparation. 4. Thinness of the abdominal walls. After the operation: 1. Absolute quietude of mind and body by morphia. 2. The drainage-tube. It seems in this case hardly credible that if the large amount of purulent débris that flowed through the tube for several days from the torn omentum and other tissues had remained locked up in the peritoneal cavity, that fatal septicæmia would not have been the result.

The tumor was the size of an adult head, and weighed about fifteen pounds.

The suppuration spoken of in the above notes was caused by one of the small silk ligatures, which subsequently came to the surface and was removed.

Case 2—AMPUTATION OF THE THIGH IN ITS SUPERIOR THIRD.

Henry H., 20 years of age, admitted December 14, and at his own request begged to have his limb amputated. He had received some years previously a severe burn, resulting in ankylosis of the knee-joint, a shrunken, deformed leg, with cicatricial integument and a large, ulcerated surface.

This condition, along with malarial fever, had so depressed his vital powers that it rendered him a most pitiable object. I operated by the partially circular method, because the exigency of the case seemed to indicate that it would be more desirable in this instance. The integument on the outward side of the thigh was healthy nearly to the knee-joint, but on the inner side the cicatrix extended quite up to the superior third.

The scalpel was accordingly carried along obliquely, following the edge of the healthy skin all around the limb; this was then dissected up to the desired point, the muscles divided as in the regular circular method, and the stump covered exclusively from the long outside flap of integument; this procedure gave a most excellent result.

Some surgeons, and among them Prof. Gross, condemn very decidedly the circular method in thigh amputations where no exigencies exist, and the surgeon has his choice of methods, stating, as a rule, they are, even when well executed, very objectionable, on the ground that it seldom affords an adequate covering for the stump, being often followed by exfoliation of the bone, tedious suppuration, and ulceration of the integument.

He says the antero-posterior flap operation furnish the best results,

there being less liability to retraction, and are almost entirely exempt from these mishaps. Though he does not deny, however, that admirable results are occasionally witnessed from the circular method.

In this case the patient made an excellent recovery, there was no surgical shock, no retraction of the great muscles of the thigh, nor other accident to mar the successful issue of the case. The wound was dressed after the most approved antiseptic methods, that is, with the iodoform gauze and bichloride solution, covered with oakum and absorbent cotton and well bandaged.

The ligature on the femoral vessel did not come away until the 31st day, then it was necessary to use quite forcible traction.

Case 3—AMPUTATION THROUGH THE KNEE-JOINT FOR FALSE JOINT AND NECROSIS OF TIBIA AND FRACTURE OF FIBULA.

George S., colored, admitted February 12, aged 35, suffering from a false joint of tibia just below the tubercle, and a fracture opposite on the fibula. Some two years ago this man, fireman, in a railway accident received a transverse linear fracture of the tibia, but thinking he had only a severe bruise, he continued to use the limb more or less, until his injury becoming so painful, he applied for admission.

On examination it was found there was a false joint at the seat of fracture. I made an effort at the time to relieve the deformity by cutting down on the joint, chiselling out the cartilaginous material and endeavoring to get bony union; this I failed in accomplishing; the parts filled up with a kind of hard provisional substance, but was not converted into bone. The limb, however, by being well supported, was quite useful, and he was discharged.

In January he had a fall and broke the fibula; his health now began to fail, the leg much enlarged and very painful, and he became very desirous that I should take it off for him.

The operation was performed by making a long anterior tongue-shaped flap by an incision beginning just below the line of articulation, about the middle border of the condyle on the outside of the limb, crossing the leg four-finger breadths below the patella, and ending on the corresponding point on the other side. A posterior-downward curved incision united these two points.

The anterior flap was then dissected up until the ligament of the

patella was reached, the leg being then flexed, the ligament was divided and also all the anterior part of the capsule. The lateral ligaments were next divided, then the crucial. The patella was retained to fill up the gap between the two condyles; this added much to the rotundity and usefulness of the stump.

Great advantage is derived from this method of operating through joint, in that the line of wound after the adaptation of the flaps are in a more dependent position, and thereby more readily admit of the escape of the discharges.

Esmarck's elastic bandage and strap were used in this instance, rendering the operation almost bloodless. The popliteal vein, as well as the artery, was ligated, as secondary hemorrhage was feared.

Long straps of rubber plaster were passed along the full length of the anterior part of thigh and over the stump to the under side, to aid in preventing the patella from being drawn up by the action of the extensor muscles. The wound was dressed in the same thorough, antiseptic manner as used in previous case.

In this case the injury was so near the joint it was thought advisable rather to make the amputation there than at the lower third of the thigh.

The patient made a good recovery, is now in good health, and is very thankful that he is restored to health.

On examining the leg after its removal, the tibia, in its whole length, was badly diseased, and a large abscess at the seat of fracture in the fibula.

Case 4—EXCISION OF THE RIGHT SUPERIOR MAXILLARY—By Thomas F. Wood, M.D.

Mrs. H., married, 30 years of age, white, has three children, one of which is undergrown and scrofulous, according to report of her physician, Dr. Harrell, of Columbus, who referred the patient to me. She had a tumor of the right upper jaw, extending to the vomer on one side, to the floor of the orbit above, and to the malar bone. There was some elasticity to the touch on the surface, and when one finger was placed in the nostril and another in the mouth, there was slight yielding. The history of the case is that she had some bad teeth and pains in her head and face. Then her jaw commenced swelling. All the teeth were extracted and the roof of the

mouth freely lanced. Fomentation and sweats were applied diligently without effect. Very free bleeding followed incisions. The growth had increased so largely that it was considered advisable to make excision of the jaw.

March 24, 1885—The patient was chloroformed and a silk ligature passed through the tongue to better manage it. Ferguson's incision was made, that is, through the median line of the upper lip around the nose and up to the inner canthus of the eye, one-half inch below, then across the face to the malar. Bleeding from the superior coronary, the lateral nasal and the angular arteries was arrested by ligature as the incision progressed. After completely dividing the skin and dissecting it back the whole surface of the tumor, bled freely. Attempts at ligating or twisting the large bleeding arteries made matters worse. Styptic cotton (Am Ende's) was applied, and the dissection completed. The nose was separated from the right side and the whole tumor exposed. A Hey's saw was entered into the nostril and the superior maxillary divided down the meridian line and backward into the roof of the mouth, the bone sawn through below the orbital plate, the facial nerve divided up into the infra-orbital foramen. I found then, by passing my finger into the nostril, that I could feel the tumor yield to forcible pressure, and by strong force with the finger a large part of the tumor was twisted out of its bed. Free bleeding followed in the bed of the tumor and styptic subsulphate of iron was freely applied.

(The right posterior nares was plugged before the nose was dissected up.)

The bleeding surface was so extensive it was found necessary to saw through the roof of the mouth at the maxillo palatal articulation, and the incision completed to enucleate the rest of the tumor.

In order to prevent the blood escaping into the throat an assistant guarded it with a sponge held in his hand and pressing into the divided upper lip.

The patient was kept as far as possible on the edge of the table, with her face two-thirds down. The bleeding was very copious, and styptic iron was used very freely, and finally the whole floor of the wound was packed with dry styptic cotton. The edges of the flap were so much injured by the cotton that I found it necessary to trim them in many places with the scissors to secure union by first intention.

The patient partially rallied from the anæsthetic by night, and was made comfortable although the tongue and throat were sore from the surgery and styptic. Her pulse continued fast, and she vomited a little water taken, stained with iron-coagulated blood. The line of incision was closed with silver wires and hair-lip pin, except two stitches of the infra-orbital incision, where two sutures of silk were used. One strap was passed obliquely over a pad of cotton, and a roller over this. The plug in posterior nares was left.

March 25th.—She slept none the night of the 24th on account of her dry and cauterized throat. She was quite exsanguine and color bad. The flap was very livid and unpromising in appearance. She took a little thin broth, and was able, with some difficulty, to drink it from a saucer.

March 26th to April 6th.—The posterior nares plug did not come away for a week. On the third day after the operation the styptic cotton commenced separating. The nares and mouth were washed diligently with a Davidson syringe. Pieces came away daily until the 6th of April. At that time the cavity of the mouth was doing well, and the whole wound had assumed a healthy appearance. The line of cutaneous incision did not heal by first intention, except the lip and around the ala. In other directions the union was by granulation. This was due to the handling of the flap and the caustic character of the subsulphate of iron.

The patient articulates with diminished ease, but swallows quite well. The disfigurement caused by caving of the face is not as great as could be expected. The middle line of the lip is drawn to the right side.

The health of the woman is rapidly improving, and she is to be discharged from the hospital on the 8th of April.

March 31, 1886.—At this writing the patient is entirely restored, and the disfiguration is not very unsightly. There is no return of the tumor.

The tumor was a large and small cell sarcoma, springing from the alveolar border of the upper jaw. It contained spicules of bone interspersed through it, and by the old classification would be denominated osteo-sarcoma.

SELECTED PAPERS.

THE TRUTH ABOUT ALCOHOL.

The temperance movement is one of the most notable phenomena of our time. In every town and village of our country total abstinence societies—whether Bands of Hope, Good Templar Lodges, or Rechabite Tents—exist and flourish, and the United Kingdom Alliance is one of the most potent of existing organizations. We understand that in the New Parliament the teetotal-party number forty, and that the advocates of local option have received a great accession of strength. It is a most significant fact that all the working men's representatives in the House of Commons are total abstainers. To those who can read this fact aright, it speaks not merely of hopeful augury for the future, but of the grim tragedy of the past. Working men alone have felt the full curse of intemperance, which has been the chief cause of their poverty and degradation : hence, no doubt, the attitude of their representatives.

The medical profession have a heavy responsibility in this matter, which they are not disposed to avoid, and which, moreover, they cannot avoid if they would. To a large extent they are the court of appeal upon this question. They are familiar with scientific teaching upon alcohol, they see daily the fruits of intemperance, and they are ever watching the effects of alcohol both in health and in disease. The public look to us for guidance and instruction ; our lightest word has often more weight than the most fervid oratory of temperance lecturers ; and our attitude, whether negative or positive, has a powerful and far-reaching influence. On all these grounds it is imperative upon the profession that their opinions on the alcohol question should be well weighed, firmly founded in unassailable truth, and free alike from the reproach of prejudice and of passion. On the one hand, we cannot be indifferent to a great moral movement, advocated, undoubtedly, in many cases, from the purest patriotism and the highest Christian charity ; nor, on the other hand, can we sanction the employment, even for the noblest ends, of a single questionable statement or argument,

nor sacrifice a vestige of truth, even at the holiest of shrines. No cause ever derived lasting benefit from error. Truth is great and will prevail, not merely because it is right that it should prevail, but because in the nature of things it must prevail. The advocates of temperance, who not rarely have more zeal than knowledge, would do well, therefore, to remember, that any unauthorized or questionable statement about the physiological action or therapeutic application of alcohol, is a serious injury to their cause, and tends to alienate from them the sympathies of the cultivated and reflective classes, whose opinion in the long run determines rational opinion. It is, for example, frequently asserted on temperance platforms that alcohol is a poison. Now, all depends upon our definition of terms. A poison is usually defined as a substance which in small quantity injures health or destroys life. It is undoubtedly most true that an individual can poison himself with alcohol, and cases of alcoholic poisoning are unhappily all too common; but poisoning with sulphuric acid or with chlorate of potash is not unknown, yet no one dreams of styling these substances poisons, as popularly understood. If the quantity necessary to produce the fatal effect be regarded, sulphuric acid has a much better claim to the title of poison than alcohol, inasmuch as a dose of a teaspoonful has been known to destroy life, whereas it requires many times this quantity of alcohol to produce the slightest poisonous effect.

Again, it is frequently asserted from temperance platforms that moderate drinking, in all degrees and in every instance, is injurious to health; and it is occasionally even denied that alcohol possesses any virtue as a medicinal agent. Such views are opposed to all medical evidence; and it is much to be regretted that they should be rashly propounded, to the great injury of the cause which their advocates are anxious to serve. Enthusiasm for a high object is admirable, but when truth is violated, she never fails to punish the transgressor for her *lesa majestas*.

What, then, is the truth about alcohol? We think it admits of being stated with certainty and precision in its broad outlines, and that the minor details of the controversy hardly affect the main contention. We take it as conclusively proved, in the first place, that alcohol is not a necessary food, and that the most perfect physical and intellectual vigor is compatible with rigid total abstinence. We may go a step further, and confidently assert that

people in perfect health are as a rule better without alcohol. The question may almost be regarded as finally settled, when a writer of Sir Henry Thompson's eminence speaks as follows: "I am of the opinion that the habitual use of wine, beer or spirits, is a dietetic error, say, for nineteen persons out of twenty. In other words, the great majority of the people, at any age of either sex, will enjoy better health, both of body and mind, and will live longer, without any alcoholic drinks whatever, than with habitual indulgence in their use, even although such use be what is popularly understood as moderate." (*Food and Feeding*, page 98.) In view of the great mass of evidence to this effect, we must own to feelings of surprise and disappointment at finding Sir William Roberts, in his recent work on *Dietetics and Dyspepsia*, throw out a somewhat obscure hint that, although a non-alcoholic regimen may be harmless to the individual, it may possibly affect the race injuriously in the course of two or more generations. We are most sceptical of the existence of any evidence to warrant this surmise. The evils of intemperance are manifest; the evils of total abstinence are unproved and improbable. The excellent health enjoyed by the great and increasing army of teetotallers, the returns of insurance and benefit societies, the example of abstaining nations, seem to us proof positive that total abstinence is at least harmless and safe. Alcohol may be accorded a place as a luxury; it certainly has a definite value as a medicine, but we think it most desirable, in the interests alike of truth and of national morality, that the medical profession should authoritatively and unambiguously declare that it is in no sense a necessity. It is on this point that the controversy really hinges, and we think the evidence regarding it is perfectly conclusive.

Secondly, we think we can affirm with equal confidence that, while alcohol possesses a certain and considerable medicinal value, its therapeutic range is gradually becoming more circumscribed. Time was when it was the first suggestion and the last resort of the distressed practitioner. We are wiser now, less confident of its virtues, less ready to trust so potent a weapon to hands that may employ it in self-destruction. There are hospitals which have reduced their spirit-bills to one-half or one-fourth of their former amount, with at least no obvious injury to their inmates. There are diseases, once uniformly treated with alcohol, which we now know to run at least as favorable a course when it is withheld.

Yet we think we speak the almost unanimous mind of the profession when we say there are cases which hardly any well-trained medical man could treat without alcohol and keep his conscience clear. In pneumonia, for example, the benefit from it seems decisive. In typhus and typhoid fever there are crises where the free use of alcohol seems literally to snatch the patient from the jaws of death. On the other hand, we deprecate most strongly the routine practice of deluging all such cases with stimulants, and urge that each case should be separately judged in view of its symptoms, alcohol being prescribed with the same deliberation and circumspection as opium or aconite. When we leave the acute pyrexial diseases, we are on a less secure ground regarding the action of alcohol. It seems of value in many cases of phthisis, and especially in soothing the last stages of the malady; but the form of stimulant needs careful selection, and, not rarely, it is better omitted altogether.

The above cases will not seriously tax the judgment of the practitioner; but, with regard to patients suffering from simple debility, anorexia, etc., the decision regarding the use of alcohol is most anxious and difficult. It is beyond question that such cases often benefit decidedly by a little good spirit, or a glass of generous port or burgundy. Appetite and digestion are often thereby promoted, and sleep is sometimes induced to return. Yet these cases are just the chosen material of which inebriates are made, and the relief of dyspepsia or insomnia would be dearly purchased by running the gauntlet of intemperance. Everything depends upon the patient; and our course of action must be guided not merely by the nature of his ailment, but upon our estimate of his strength of will.

It is perverse to assert that every moderate drinker is a drunkard *in posse*, or that we must withhold alcohol in every case where there is the faintest possibility of it being abused; but the trained observer will learn to distinguish those cases where the risk of excess is so patent as to outweigh the prospective advantage which might reasonably be hoped from this line of treatment. Two rules may be laid down with confidence. Alcohol should be rigidly prohibited in hysteria and in all forms of quasi-hysterical debility, and it should be still more strictly withheld in every case where there is an undoubted hereditary tendency to intemperance. A medical man may feel disposed to take the ground that he is accountable only for the conduct

of the existing malady, and has no responsibility for the after-consequences of his treatment. With much respect for those who may differ from us on this point, but with great earnestness, we submit that to pull a patient through the crisis of pneumonia or typhus, unless under urgent circumstances, at the terrible cost of developing a clearly marked hereditary tendency to intemperance, is not calculated either to advance the honor of the medical profession or the best interests of humanity.

We urge the profession to realize their great responsibility and their immense influence upon this question. Their views should be deeply pondered, their words weighty and well-spoken. They must hold the balance between selfish indifferentism and a zeal which not seldom borders on fanaticism. They must earnestly desire to know the truth, and proclaim it through good and through evil report. They must refuse to be coerced into abating one jot of their deliberate convictions at the bidding of any organization; but they will, we think, learn to look with a more and more favorable eye upon a great moral movement which will not in all cases gain their adhesion, but which has a powerful claim upon their sympathy and respect.—*British Medical Journal*.

SUCCESSFUL LABOR AFTER RECOVERY FROM RUPTURE OF THE UTERUS.—The remarkable case of rupture of uterus occurring in the practice of Dr. D. W. Bullock, of Whitaker's (*NORTH CAROLINA MEDICAL JOURNAL*, July, 1882, p. 8), will be remembered by most of our readers, but we will hastily recapitulate the prominent features: A colored multipara, 34 years of age, had rupture of the uterus after being in labor four hours. The head was "button-holed" through the uterus, as Dr. Bullock expressed it, and a loop of intestine was prolapsed through the vagina. There was nothing wanting to show the correctness of the diagnosis. The woman made a good recovery in about seven weeks. We are now able to record the fact that this patient was recently safely delivered of a living child, and made a good recovery.


Cases are on record of safe delivery after Cæsarian section, but after a considerable hunt we found only one case of a successful labor after the recovery from rupture of the uterus, viz: that by Dr. D. W. Moore, Milwaukee, Wis., 1881, in *Transactions Wisconsin Medical Society*, Vol. XV. p. 128. In this case the uterus was ruptured the second time, followed by recovery.

EDITORIAL.

THE NORTH CAROLINA MEDICAL JOURNAL.

A MONTHLY JOURNAL OF MEDICINE AND SURGERY, PUBLISHED IN
WILMINGTON, N. C.

THOMAS F. WOOD, M. D., Wilmington, N. C., Editor.

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PINE-WOOL AS A DRESSING, AND PINE-NEEDLE OIL AS A STYPTIC AND ANTISEPTIC.

The practical outcome of antiseptic surgery is evidenced by the employment of such articles of dressing and such substances for the procurement of surgical cleanliness as were in common use before the theory of antiseptic surgery was known. For instance, the common practice among coopers and other workmen wounded on our wharves, was to apply spirits of turpentine on a bit of cotton or oakum, or anything near at hand. In the course of a few hours, as the oil of turpentine became oxidized by exposure to the air, it became gummy, and the dressing was made impervious to the air. Healing by first intention was very common under such unpro-

fessional, but admirable surgery. So perfect were many of the dressings and so perfect were the results that many times we have found that redressing the wound was unnecessary interference.

Since antiseptic surgery has been in vogue many substances have been experimented with, and it is a little surprising how many have proven of some value. The employment of the products of the pine have not been much examined, although we believe Lister at one time examined oxidized oil of turpentine. Lately we have had placed within our reach some of these products which have given decidedly good results, and they deserve to be widely known among surgeons. The first is pine wool or fibre. This is prepared from the leaves of the *Pinus Australis*—the long-leaf pine of the Southern coast.

The green leaves are stripped from the trees, the oil is distilled from them, and they are then treated with caustic lye. The finished product is a fibre as strong as jute, which is spun and woven into carpets. It is durable, takes dyes without a mordant, imparts a soothing balsamic odor to the room, and wears glossy and smooth. A fabric possessing such properties suggests itself at once to all those parts of hospitals where carpets are admissable. As valuable as we believe this carpeting to be, we did not intend to say so much of it, as of the pine-wool which the same factory prepares in bats for surgical dressings. This fibre is not strictly a wool, of course, but the name was applied to a somewhat similar material in Germany, where it was introduced, under the name of Wald-Wolle, in Humboldstan in 1840.—*Am. Jour. Phar. Feb.*, 1885.

The Wilmington product is brown, soft, and elastic enough in bats not to pack or cake. It has a rather pleasant odor, and as it comes from the factory it needs no impregnation with other antiseptic material than that inherent to the fibre. The cheapness of this material, and its eminent qualities will soon recommend it to private surgical cases, but more particularly to large hospitals.

Pine-needle oil is brownish and heavier than oil of turpentine—the former being .888, the latter .876. It has a warm, bitter, aromatic taste, slightly acid and lasting, and the odor of tan-bark, with a slight suggestion of nutmeg oil. The best oil is obtained from leaves gathered in July. It oxidizes in the air more rapidly than oil of turpentine, is more viscid and gummy. Its application in surgical dressings is most gratifying. Only a limited experience in

its use has so far come to our knowledge, but it has been of a very convincing kind.

The qualities which make it superior to other similar dressings are: (1) That it makes, when applied to cotton or to pine-wool an impervious, unirritating dressing. (2) That its odor is rather pleasant, and its powerful antiseptic action keeps wounds sweet for days. (3) That it is markedly styptic.

The writer of this invites the employment of these articles by the profession, and a supply will be furnished to (at present) a limited number of surgeons desiring it, he believes, although this article is written entirely without the knowledge of the manufacturers.

Such a dressing as above described is admirably adapted to lacerations of the hands, and to all compound fractures. We believe that the pine-needle oil would be a far better styptic to the small bleeding vessels encountered in ovariectomy than sub-sulphate of iron, and for the topical dressing in ovariectomy the wool is all that could be desired.

We have no interest in this matter further than to call the attention of the profession to the use of the substances named, and we feel assured that they will verify what we have written about it.

THE FUNCTIONS OF THE NOMINATING COMMITTEE.

The plan of electing officers by ballot in the Medical Society of North Carolina was abandoned for many reasons: 1. The confusion attending the process of balloting for numerous candidates. 2. The time consumed. 3. More than all, the tendency to elect the most popular man present at a meeting, ignoring the necessity of selecting officers from among the men who had been for the longest time working members of the Society, and consequently members who were well imbued with the true purposes of the organization.

The Nominating Committee once organized, had distinctive features from the beginning, and features which have been carefully perpetuated ever since. It is not difficult to comprehend that privacy was an essential condition of success as far as the sessions of the committee

were concerned. However much the merits of rival candidates were urged upon the members of the committee as individuals, the discussions by the committee were always confidential. Moreover, the discussions had by the committee were of necessity private, for how else could a committee act untrammelled? The decision once being reached by the committee, the evidences upon which the individual members came to a conclusion as to the fitness of candidates were of a private nature, and the rule has long been held that the divulgence of it was not permissible. For instance, the Nominating Committee might find it necessary in the course of their deliberations to summon the Board of Censors to inquire about the status of a proposed candidate. The Board, or any member of it, have a right, and it is the proper thing to do, to state officially what they know, and this communication is in the nature of a special privilege. How else could the Nominating Committee arrive at conclusions which would redound to the best interest of the Society? It is very evident, though, that what transpired before that Nominating Committee, if divulged, would be the means of producing discord of a bitter sort. This is not conjecture, for such imprudences have been committed, and have resulted in permanent estrangement of members.

We trust that President Graham will bring it forcibly to the minds of the Society in his address that the discussion of the Nominating Committee as to the fitness of candidates shall be inviolably secret, and so give shape by official utterance to what has been the practice in the Society for years.

A CASE is recorded in the *British Medical Journal* of a female, aged 40 years, who was admitted into the Philadelphia Hospital in a delirious typhoid condition. The abdominal cavity was filled with a large tumor, which extended to the ribs. It was globular, movable, tense and distinctly fluctuating. For five or six weeks the urine had dribbled away constantly. The author diagnosed a distended bladder, and introduced a catheter; by this means during the next twenty-four hours, he drew off 464 ounces of urine. Next day a partially decomposed four-months fœtus was passed. For the next three weeks the patient was unable to pass urine naturally, but the bladder gradually regained its tone, and in three months the patient was cured.

REVIEWS AND BOOK NOTICES.

A REFERENCE HAND-BOOK OF THE MEDICAL SCIENCES ; Embracing the entire range of Scientific and Practical Medicine and Allied Science by various Writers. Illustrated by Chromolithographs and fine Wood Engravings. Edited by ALBERT H. BUCK, M.D. Vol. II. New York : William Wood & Co., 56 & 58 La Fayette Place. 1886.

This, the second volume of this magnificent work, in the space of 814 double-column quarto pages, covers a large number of subjects, from CATARRH to EYE.

The contributors to the volume number one hundred and two, and include writers of well established reputation, and those who are less known, but still we do not risk anything in saying that the highest merit is evinced throughout the work. As we turn over the pages and scan subject after subject, varied treasures of learning in purely medical topics and of the allied sciences, the wonder is that no such work was ever before attempted in this country.

The noticeable feature of this great work is that none of the subjects are cut short for lack of space, but are treated thoroughly and exhaustively. For instance, the article on *Cerebro-Spinal Meningitis* occupies 14 pages ; that on *Cholecystotomy* 16 pages ; that on *Cinchona* 10 pages ; that on *Cleft Palate* 9 pages. The proportion of space of the rest of the volume may be judged by this. "Quain's Dictionary," as valuable as it was considered when given to the profession, is far less complete than the "Hand-Book," the only work with which we can compare it. The wood-cuts are really illustrations, and most of them are original : the exception being that the pictures of medicinal plants are taken almost exclusively from Baillon, a selection which could hardly be improved on.

The colored plates are five in number, besides a full-page lithograph of Elephantiasis Arabum, after Hans von Hebra. The colored illustrations represent Holmgren's color-test, ten figures representing diseases of the cornea, four figures of *Dactylitis Syphilitica*, full-page illustration of *Cornus Florida*, and a full-page plate of *Eucalyptus globulus*. While these illustrations could not be considered necessary to the elucidation of the text, they are

not superfluous by any means, and add to the pleasure of the reader.

As nothing but a thorough examination of these volumes would convey an adequate knowledge of their contents, we forego further comment, after strongly commending them to our readers.

A MANUAL OF ANIMAL VACCINATION : Preceded by Considerations on Vaccination in General. By Dr. E. WARLOMONT. Translated and Edited by ARTHUR J. HARRIES, M.D. London : J. & A. Churchill. 1885.

The author of this small volume will be accepted as authority in all matters appertaining to the technique of vaccination, especially that pertaining to inoculation of calves, as he was the founder of one of the first animal vaccination services. His dictum will not be received unquestioned, though, by several propagators in this country, on the expression of the vesicles on the calf by means of forceps to be sure to obtain the active properties of inoculable vaccine. Several propagators in this country denounce this method as objectionable. Dr. Warlomont holds that as the serum of the cow is more plastic, and as the virulence of the matter depends upon the bright granulations—microbes—nothing short of expression produces a vaccine containing all the active elements. The difference between the skin of the human subject and the cow makes expression necessary ; a simple incision will not cause the fluid matter to flow from the vesicle in a cow as in man, a considerable incision into the external cuticle without seeing the least particle of lymph ooze up.

What is practical in this book does not equal the practice in the best American *vacheries* ; and what is speculative is deeply imbued with the over-shadowing theories of specific germs, and stands upon ground even more debatable than that for which it was substituted.

A book having practical directions for the vaccine propagator is a necessity, but we need not look for a good one until some one of the old propagators in this country is willing to devote his time to it.

CURRENT LITERATURE.

TREATMENT OF PELVIC ABSCESS IN WOMEN BY INCISION AND DRAINAGE.

Dr. Paul F. Mundé draws the following conclusions from an elaborate paper with the above title published in the *American Journal of Obstetrics*, February, 1886 :

1. Pelvic abscess in the female is not very common in proportion to the great frequency of pelvic exudations, and probably does not occur in more than ten per cent. of all cases, the majority of exudations terminating in spontaneous absorption.

2. Pelvic abscess may be either extra-peritoneal, the result of cellulitis (by far the most common variety), or intra-peritoneal, the consequence of pelvic peritonitis. If intra-peritoneal, the adhesive inflammation between pelvic viscera and intestines may so seal the abscess-cavity as to render it *practically extra-peritoneal*.

Abscess of the ovary and pyosalpinx do not belong in the category of "pelvic abscess" proper, and do not fall under the same therapeutic rules, unless when, by agglutination to the abdominal wall or to Douglas' pouch, they become virtually extra-peritoneal.

3. Small deep-seated pelvic abscess, not exceeding a capacity of two ounces, and minute multiple abscesses in the cellular tissue can often be permanently cured by evacuating the pus thoroughly with the aspirator. The surrounding exudation is then rapidly absorbed.

4. About one-half of the abscesses open spontaneously into the vagina, rectum, bladder, or through the abdominal wall and ischiatic fossa. These cases may gradually recover without treatment, or the sinuses may persist until closed by surgical interference.

5. Abscesses containing more than two ounces of pus should be opened by free incision along an exploring needle or grooved director, cleared of débris by finger or blunt curette, and drained and irrigated, if necessary, through a drainage-tube.

6. This incision should be made at the spot where the pus points most distinctly, which is usually the vaginal vault.

7. In a certain number of cases the pus points through the ab-

dominal wall, generally in the iliac fossa, and the incision should then be ample, and free drainage should be secured.

8. When the pus has burrowed deep into the pelvic cavity, and a probe can be passed from the abdominal incision down to the vaginal roof, mere abdomino-cutaneous drainage will not suffice, and a counter-opening must be made in the vagina and a drainage-tube carried through from the abdominal wound into the vagina. This drainage-tube may have to be worn for months. In making this incision care should be taken not to wound the bladder.

9. The opening of a pelvic abscess which points through the abdominal wall does not differ from and is no more dangerous than the same operation elsewhere on the cutaneous surface of the body. It is not an "abdominal section" or a "laparotomy" in the sense that these terms are now used to indicate the surgical opening of the peritoneal cavity.

10. Chronic pelvic abscesses, which have burst spontaneously and have discharged through the vagina, rectum, or elsewhere for months or years, are exceedingly difficult to cure. This is particularly the case when the opening is high up in the rectum. A counter-opening in the vagina, or enlarging the opening if there situated, the curette, stimulant irrigation, etc., may occasionally succeed, but usually fail.

11. A perityphlitic abscess may point through the abdominal wall and simulate a pelvic abscess proper. Aspiration will settle the diagnosis; the treatment is the same.

12. The majority of cases of pelvic abscess recover; at least the mortality is small.—*Therapeutic Gazette*.

ERGOT OF DISS.—Diss is the Arab name for a reed (*Ampelodesmos tenax*, Link) which is very common in Algeria. The plant is from six to ten feet high. The ergot found on this plant was first detected in 1842 by M. Darien de Maisonneuve. It differs from ergot of rye in being barely half its diameter, but twice or thrice its length. [Ergot—*claviceps purpurea*—differs in shape according to the host upon which it lives, but the fructification which is the test of botanical identity, is the same in all.] The ergotin of Wiggers and of Bonjean are prepared from the ergot of diss. The preparations from this ergot are said to be twice as strong as those made from ergot of rye, only half the dose being necessary to produce the same results. The price of ergot of diss is much less than ergot of rye.—*Am. Jour. Pharmacy*.

THE TREATMENT OF INCONTINENCE OF URINE IN CHILDREN.

There is scarcely any disease occurring among children more annoying and troublesome than incontinence of urine. It is particularly vexatious to parents, and is often regarded by them as an incurable infirmity. After their patience has been long tried, they abandon one remedy after another and look forward to puberty, when, they are told, the disease may depart, never to recur. According to Dr. Day (*Brit. Med. Jour.*, February 13, 1886), failure in treatment is frequently owing to an erroneous diagnosis of the affection; to the inefficiency with which the treatment is carried out; to its being discontinued too soon. Among the causes of enuresis, the following may be enumerated: If the urine is excessively acid or loaded with urates, the bladder becomes over-stimulated and readily discharges its contents; if the bowels be habitually costive, or there be worms in the intestines, vesical irritation may ensue; or, if the child be guilty of masturbation, there will be no chance of cure till the habit is corrected. Weakness of the muscular coat of the bladder from general debility or anæmia is a very common cause; the bladder, not being able to tolerate any quantity of urine, readily excites the motor apparatus. Dr. Day has known a troublesome case follow typhoid fever in a boy ten years of age. If the disease be owing to a long prepuce, causing phimosis, it should be removed. Sometimes no cause can be ascertained. Children two or three years of age frequently wet the bed, either from laziness or from lack of control over the bladder. It is important to remember that, even though the secretions are in perfect order, the incontinence may continue, and thus a habit may be formed which the poorer classes and stern people occasionally endeavor to correct by punishment. In some idle and dirty children such a course may be of benefit; but in others who are nervous and timid, there is the possibility of increasing the evil we desire to remove.

Enuresis is sometimes seen in connection with chronic albuminuria, and is so occasionally persistent as to require special treatment. It seems impossible to lay down a plan of treatment for general adoption; the peculiarities of constitution and habits of life must be taken into consideration, and hap-hazard treatment guarded against. Some cases are cured or relieved by the combined influence of electricity,

iron and belladonna. The successful issue is in a great measure attributable to the constant care which the mother takes in feeding the child and rigorously attending to the physician's instructions. Those cases that date from birth or have lasted upwards of a year are invariably intractable and often incurable, especially if the child be of nervous parentage, or was delicate when born, or passes large quantities of urine. With respect to the utility of faradism there can be no question ; it requires to be used regularly, and to be continued for a considerable time, but it sometimes fails altogether. When the nervous system is weak, and there is general debility, the sphincter loses its power, and urine escapes by night and day without the child's knowledge. It is in such cases as these that iron and nux vomica are of service.

If there be excess of muscular action, and the child have frequent inclination without power of control, belladonna is an admirable remedy. It occupies a prominent place as a therapeutic agent, and sometimes, when combined with iron, even in small doses, it seems to do good ; but it should not be given up in obstinate cases, till either soreness of the throat is produced or dilatation of the pupils takes place. In Dr. Day's hands it has often failed when administered in any form or dose. It certainly tends to lessen irritability of the bladder, and should always have a fair trial.

Cold sponging in the morning is very serviceable in cases of enuresis that appear to have their origin in general debility. It braces up the nervous system and is a powerful tonic. The slight sensation of chilliness soon passes away without leaving any depression if vigorous friction with a towel be employed for a few minutes. In a case under Dr. Day's care, about three years ago, the cure was attributed to this simple remedy when one remedy after another had failed. The vital functions are brought into a healthier state, the skin acts better, and the appetite and digestion improve. However delicate a child may be, free sponging in tepid water, followed by a good rubbing, is of great value.—*Therapeutic Gazette*.

QUININE is always supposed to reduce the temperature, and yet Dr. Moeckel, of Nuremberg, refers to a case in which a woman, after taking 3 grs. of quinine for malaria, had a chill and rise of temperature up to 104.5° F. ; and this increase occurred every time quinine was administered.—*Therapeutic Gazette*.

THE MECHANICAL THEORY OF UTERINE THERAPEUTICS REVIEWED.

The sum of the evidence in favor of the mechanical theory of uterine pathology consists of the following : convictions from clinical observation—whatever that may mean ; the recognition of the association of displacements with suffering, and the non-recognition of absence of displacement with equal suffering, and of displacement with no suffering ; the theory that flexion of the uterus causes stenosis of the canal, obstruction to the flow of the menses, and dilatation of the cavity of the body of the uterus ; the inference that flexion causes pressure on the tissues of the uterus, and prevents the return of blood from the organ, and therefore gives rise to congestion and enlargement of its body ; the theory that dysmenorrhœa is due to obstruction, and that that obstruction is due to stenosis of the inner or outer orifice or to flexion.

Now, it is an astonishing fact, that in support of all or any of these theories, no evidence amounting to anything like proof has ever been produced ; while, on the other hand, several of them have been proved to be absolutely false. Conviction alone from whatever experience, has no place in science, unless the process by which the conviction is arrived at is given. The association of suffering with displacements of the uterus is recognized by all schools, but this is no proof or even evidence in itself of a causal relation between them. The fact that no causal relation exists between displacement and suffering has, however, been established beyond doubt. Vedeler and Herman have shown that suffering is just as frequent in the absence as in the presence of flexion, and further, that flexion is present as often without as with suffering.

No evidence, whatever, is forthcoming in favor of the statement that flexion of the uterus causes stenosis of the canal ; while every flexed uterus examined post-mortem has demonstrated the contrary, and, with equal relentlessness, shown that flexion does not give rise to dilatation of the caual above the angle of flexion ; and Williams has shown that the circulation in the uterus is such that it is not possible for the flexion of the organ to interfere with it. Thus by years of scientific labor and research it has been abundantly demonstrated that not one of the pathological convictions to which the

mechanicians are so faithful has any basis in fact ; and that all these convictions are the emanations of a too fervid fancy unfettered by a rigid regard for facts.

But let us proceed to another tenet of the mechanical school, which has called into existence much of so-called minor gynecology. Marion Sims started with the theory that dysmenorrhœa could not exist without stenosis of the uterine canal. This he treated as an axiom—a self-evident truth. Not finding the condition generally at the external os, he inferred it must be at the internal, acted accordingly, and invented a knife for division of the uterine wall at that part.

But what are the facts? Is not stenosis of the uterine canal at the inner or the outer orifice extremely rare, while dysmenorrhœa is extremely common? It is well known that if a Simpson's sound can pass along the uterine canal there can be no stenosis. It is also true that there are many cases in which it is difficult to cause the sound to enter the os internum ; but this is due, not to stenosis of that part, but to imperfect manipulation, for once the sound has entered the cavity of the body, there is no difficulty in withdrawing it, the instrument is not grasped in the supposed narrow os. The same is true with regard to the os externum. Cases of conical cervix with small round external os are not uncommon, but it is extremely rare that such an os is so small as not to permit the entrance of a Simpson's sound. Pinhole os is a misnomer for this condition, and is infinitely rare. If the os be large enough to admit the sound, it is surely large enough to permit the flow of the menses and the entrance of the microscopic spermatozoa, for they readily penetrate the smaller lumen of the Fallopian tube. The theory that such conditions cause dysmenorrhœa or entail sterility would be too absurd for refutation, but for the fact that great names have endorsed it. There is no statistical evidence, but only general assertion, in favor of it, while every gynecologist has had evidence of its incorrectness in the fact that women with so-called "pinhole os" and conical cervix menstruate without pain and become mothers. The evidence at present before us shows that the mechanical system of uterine pathology has no claim to be regarded as a part of scientific medicine.—*American Journal of the Medical Sciences.*

ON EXPRESSION OF THE AFTER-COMING HEAD.

Koppe, in the *Centralblatt für Gynäkologie* of September 26, 1885, suggests a procedure somewhat different from that usually adopted for expressing the after-coming head in pelvic presentations. He points out that the pressure which is exerted on the head in a direction perpendicular to the pelvic inlet tends to flatten that part of it which is lying above the brim, and thus necessarily leads to an increase in all the diameters which run parallel to the brim. In other words, the usual mode of applying pressure causes an increase of the very part of the head (i. e., the diameters which are parallel to the brim) which was already too large to pass through the pelvic cavity before the pressure was applied. This must necessitate the use of additional force to cause the head to pass, and cannot but be injurious both to mother and child. Koppe, to avoid the difficulty, and in order to diminish the diameter imparted in the conjugate, instead of increasing it (as occurs in the ordinary method), has adopted the following plan with good success :

After seeing that the bladder is empty, and making sure that the antero-posterior diameter of the head is lying pretty nearly in the transverse diameter of the pelvis (bringing it into that position if not there already), he gives the body of the child to the nurse, directing her to hold it according to the Prague method and in the proper position for the extraction. The accoucheur now approximates as much as possible the thenar and hypothenar eminences of one hand, places it immediately above the symphysis, and forcibly presses the projecting part of the foetal head against the last lumbar vertebra. In difficult cases he may support his elbow against his body in order to obtain greater power. After thus exerting a constant pressure for some seconds, the diameter of the head in which the pressure is applied becomes smaller, the bones gliding over one another at their sutures. In many cases the compressed head gives a distinct sensation of yielding to the pressure. It is at this moment that expression or expression combined with traction on the trunk can be most favorably used for delivering the child. The free hand, usually the right, is placed flat over the vertex of the skull in the direction of its sagittal diameter, and strong pressure is applied in a direction perpendicular to the brim while the full lateral pres-

sure is still kept up. At the same time the nurse should pull vigorously on the trunk. The head is now felt slowly to yield and to sink into the pelvic cavity, the accoucheur then seizes the body of the child in order to deliver the head as quickly as possible. In unusually difficult cases, an assistant may press upon the hand of the accoucheur so as to increase the pressure. One advantage of this procedure is that the compression of one diameter of the skull caused by it, is accomplished artificially in less than a minute. The diminution in the diameter of the skull corresponding to the c. v. must of course be accompanied by an elongation in the other diameters, but as the transverse diameter of the pelvis measures two cm. more than the c. v., this does not usually cause any difficulty.—*American Journal of the Medical Sciences.*

SOME OF THE LESS COMMON FORMS OF MASTOID DISEASE.

Mastoid osteitis, as it has been well called by Politzer, because we may get any of the conditions which accompany any inflammation of bone, assumes a variety of external appearances and symptoms, most of which are well understood and readily diagnosed. The most common form is due to extension of the inflammation which exists within the mastoid cells, through the external cortex to the outside of the bone, with resulting external periostitis and subperiosteal abscess with or without a carious fistula through the bone. This expresses itself by tenderness of the bone on pressure, œdema of the soft structures and finally fluctuation. In these cases the external appearances œdema, swelling and fluctuation are found on the flat external surface of the mastoid process and an incision parallel with and near the insertion of the auricle when carried through the periosteum will evacuate the pus, if the case has gone on to full suppuration, or, if it has not yet proceeded so far, a slight raising of the periosteum to one side or the other will usually expose the spot through which the inflammation has come from the inside, a small spot of the bone being inflamed or softened by decalcification, or perhaps distinctly carious. The point to which

I would direct attention in these cases is the seat of the suppuration which occurs beneath the periosteum opposite the point of inflamed bone and on the external face of the mastoid process.

The following two cases are, I believe, but varieties, so far as I know, however, hitherto undescribed, of this form of mastoid inflammation extending through the external cortex: they offer certain peculiarities which are of some importance, both in diagnosis and treatment. They are the only two cases I have ever seen.

A maid-servant, aged twenty-four, during an acute coryza, was seized with severe pain in one ear which developed into a severe suppurative inflammation of the tympanum and mastoid. I saw her first after the mastoid had been inflamed several days, and found the usual symptoms of external periostitis, swelling and marked œdema, in the usual spot over the mastoid. Her removal to the City Hospital was advised, and there, in spite of antiphlogistic treatment, suppuration occurred in a few days. The external appearances, however, varied from the usual form in that, although at first swelling and œdema were over the flat external surface of the mastoid, as is common, although the inflammation progressed, this swelling gradually subsided over the mastoid, but appeared downwards and backwards from the tip of the bone, and finally distinct fluctuation was felt close to, but downwards and backwards from the tip of the mastoid. Under either an incision was made through the periosteum, starting a little above the lower edge of the bone, but pus was only reached after the knife had passed over the edge of the bone through the posterior part of the tendon of the sterno-mastoid muscle. About a drachm of pus was evacuated, and examination with a probe showed the posterior and lower aspect of the mastoid denuded and the cavity of the abscess was just beneath this spot. The wound was dressed antiseptically, no further suppuration or crises resulted, the inflammation, both of mastoid and tympanum, receded rapidly, and the recovery was complete.

The second case was that of a Chinese laundry-man, whose history, from the lack of an interpreter, could only be obtained from the objective symptoms. Entering the City Hospital for an abscess over the ribs he developed a suppurative inflammation of the right tympanum and mastoid, followed by the usual œdema and swelling over the external surface. The swelling had existed for sometime when I first saw him, but started in the usual spot over the external surface, just behind the auricle, and extended downwards for some two inches

beneath the point of the bone and backwards for another three inches. There was the characteristic great œdema over the bone, but the rest of the swelling was firm and hard, but with ill-defined edges. Although an immediate incision was advised, some days were lost in obtaining his consent. Under ether examination now showed that the œdema over the flat surface had much diminished, and deep palpitation failed to find any fluctuation there. The rest of the swelling remained as before, except that by tolerably deep palpitation distinct fluctuation was felt at the same spot as in the previous case, just behind and below the tip of the mastoid.

Notwithstanding the diminution of the swelling over the bone, I made the customary incision parallel with the auricle through the periosteum without finding pus; a cross incision was then made downwards and backwards, and pus was only reached after the knife had passed beneath the edge of the bone into the space behind the sterno-mastoid tendon when a cavity, shallow but some two inches in circumference perpendicularly was opened. A bent probe showed, as in the previous case, the posterior lower surface of the mastoid tip denuded but not softened. The periosteum over the external surface was turned back and a small spot of distinctly inflamed bone not yet softened, about an eighth of an inch across, was exposed on the level of the meatus. A counter-opening was made in the lowest point of the abscess-cavity some two inches down the neck and a drainage-tube passed from this up through the other opening. Antiseptic syringing was used twice a day both for the wound and the tympanum. The improvement was rapid; at the end of a week the drainage-tube was removed; in ten days the otorrhœa had ceased and the perforated drum-membrane healed. The induration of the tissues is now nearly gone. The hearing, however, is lost, apparently from the involvement of the labyrinth.

In both of the cases there was undoubted inflammation of the mastoid cells accompanying purulent inflammation of the tympanum; in the Chinaman the spot of inflamed bone was an absolute demonstration of the extension of the inflammation through the bone: in both of the cases there was not only the extreme tenderness of the bone to pressure, but also the characteristic œdema of the upper and posterior wall of the meatus; and the fact that the pus in both cases lay against the bone, makes it almost certain that the suppuration was due to the mastoid inflammation.

The peculiar characteristics of both cases were (1) the swelling and œdema over the whole external surface of the bone in the earlier stages of the inflammation, which, however, rather diminished than increased as suppuration occurred; (2) the seat of suppuration, not beneath the periosteum of the external surface, but in the neck below the bone and beneath the expanded tendon of the sterno-mastoid muscle, and undoubtedly beneath the periosteum of the posterior lower aspect of the tip of the mastoid, as shown by the bare bone at that spot.

The obstacles to superficial fluctuation and spontaneous opening of the abscess are sufficiently explained by the tendon of the sterno-mastoid muscle, which is attached, not only to the mastoid, but spreads out, fan-shaped, and is attached along the superior curved line of the skull for a considerable distance backwards from the mastoid. The confinement of the suppuration between this tendon and that of the splenius capitis muscle sufficiently explains the shallow character of the abscess inwards and its large perpendicular circumference, due to the extension of the cavity downwards, as seen in the Chinaman.

The extension of the inflammation from within the mastoid cells to this point externally is interesting; the firm attachment of the sterno-mastoid and splenius capitis muscles would serve to strengthen the bone, and theoretically we should not look for a beginning of periostitis here. There is, however, one form of development of the mastoid which may, I think, explain these cases. The mastoid cells are developed from the diplœ between the two tables of the skull at this point, which tables separate more and more, and the small-celled diplœtic spaces are developed into the large pneumatic mastoid cells. It is well established that the development of the mastoid varies very much; of two hundred and fifty adult mastoid bones examined by Zucherandt, only 36.8 per cent. showed pneumatic cells throughout, while 43.2 per cent. were partly pneumatic and partly diplœtic or composed of thickened osseous tissue and wholly destitute of pneumatic spaces. The peculiarity to which I would direct attention is, that not only may we have a sub-development, as shown by the above statistics, but in very exceptional cases there may be a hyper-development, so to speak, in which the pneumatic spaces not only fill the mastoid bone, but the two tables of the skull are separated farther back than the true normal mastoid

process and pneumatic cells, communicating with and forming part of the true mastoid cells, are formed some distance backward from their usual position, so that the mastoid cavity is not limited by the process itself, but extends backwards between the two tables of the skull for a distance sometimes of half an inch or more. In the few cases of this hyper-development where I have dissected, the pneumatic spaces were large, very perfect, and the external cortex thin. The natural result of this condition is that just behind the mastoid process, instead of the usual form, quite solid bone we have a thin cortex merely, through which the inflammation from within could readily extend, and it seems probable, theoretically, for of the fact I have had no opportunity to satisfy myself, that with this hyper-development the posterior aspect of the mastoid would be altered and possibly space left between the insertion of the sterno-mastoid and splenius capitis muscles, which does not usually exist. This latter, however, is not necessary, for the thin external cortex of such cases would alone afford a sufficiently favorable opportunity for the extension of the inflammation.

The practical lesson to be derived from the cases is the necessity of making the incision farther back than is usual, and also of going below the edge of the bone, entirely through the tendon of the sterno-mastoid muscle; and in case gravity of the pus has made a large cavity of inserting a drainage-tube throughout the whole length of the abscess to ensure perfect drainage and prevent further burrowing, a considerable risk at any time, and greatly increased if the bone should have become carious, which, however, had not occurred in my cases.

The diagnosis of this unusual condition of the bone cannot be made out by any external examination, and the locating of the suppuration in the spot I have spoken of, cannot be anticipated beforehand; in fact, it is only to be recognized after it is fully established, when quite deep palpation will reveal fluctuation just behind the mastoid and below the bone.

The differential diagnosis between this form of mastoid inflammation and that which occurs when the inflammation extends from the mastoid cells through the floor of the mastoid into the digastric groove is not always so simple as it might seem. In the Chinaman the induration of the tissues of the neck was very marked for two inches or more below the bone, and my first impression was that I

was dealing with a penetration downwards into the digastric groove. As the case progressed, while we were waiting the services of an interpreter, the absence of the characteristic cellulitis, with its hard, board-like feeling and clearly cut edges, the non-extension of the inflammation forwards or backwards, notwithstanding the interval of ten days, but especially the presence of inflammation on the external surface of the mastoid which is not seen with the digastric variety, and finally the development of fluctuation at the spot indicated, made it evident that we had an unusual form of external rather than the very dangerous digastric inflammation.

The serious character of extension of inflammation through the floor of the mastoid into the digastric groove will be appreciated when it is remembered that the suppuration then occurs beneath the deeper fascia of the neck in the immediate vicinity of many important vessels along which it burrows. The external symptoms are first, swelling and tenderness beneath the tip of the mastoid, then a gradual extension of the inflammation down the sterno-mastoid muscle, then into the fossa retro-maxillaris, then along the larger blood-vessels, often running downwards over the whole side of the neck to beneath the clavicle or backwards to the median line. The swelling usually assumes the character of a cellulitis, being dense, hard, usually with sharply defined edges, and protruding but little. Distinct fluctuation is rarely discovered except in the later stages of the disease, and is then found only in circumscribed spots, usually near the median line below the edge of the skull or in the neck. Incisions rarely meet pus except by dissections into the deepest parts of the neck, and I have known such made by excellent surgeons without evacuation of any matter, and once have known very serious hæmorrhage from wounding a deep artery while trying to reach pus beneath the fascia near the median line below the occiput.

The several cases of this form of the disease which I have seen, have resulted fatally, as they often do, either from exhaustion, the burrowing of pus into the thorax, embolic infarcts, or cases of the cervical vertebræ. Bezold's experiments in injecting colored gelatine with force into the digastric groove after boring through the mastoid showed the same series of phenomena which had been observed clinically. The gelatine passed along the belly of the digastric muscle under the parotid and along the sheath of the

occipital artery to the carotid and backwards along the same artery, and was found to lie in three separate strata between the trapezius and splenius, between the splenius and complexus magnus and between the complexus and the short deeper muscles of the neck, running down even to the second dorsal vertebræ.

One case of this digastric variety since then, seen with Dr. R. M. Hodges, is of interest, both from the recovery and from the method of operating. It was quite typical in its appearances, purulent inflammation of the tympanum, tender mastoid, swelling just below the mastoid tip, extending into a hard, cellulitis down the neck for a distance of eight centimetres and no swelling over the external surface of the mastoid. Dr. Hodges incised the periosteum over the mastoid down to its tip, and then followed beneath and after fairly getting round the mastoid-tip beneath the periosteum, evacuated a small amount of pus. Examination showed the whole floor of the mastoid carious, and it was removed with a curette over a space at least a centimetre across. This patient made a tedious but good recovery, and is the only case of full recovery from this form of the disease I have ever seen.—*J. Orne Green, M.D., in the Boston Medical and Surgical Journal.*

THE BLOOD PLAQUE.

The chief interest of Professor Osler's Cartwright Lectures, the last of which appears in this week's issue of *The News*, lies in the full consideration of the much debated third corpuscle for which the term plaque is suggested. This element has had a hard struggle for recognition at the hands of histologists, and even yet there are capable observers who are not convinced of its existence. The difficulty lies in the remarkable rapidity with which the corpuscles undergo alteration when the blood is withdrawn, fusing into irregular masses in which the individual elements lose their distinctness. In order to see them clearly, they must be studied within the vessels, or in the blood-drop expressed directly into osmic acid or some fluid which will prevent their adhesion to each other. Under these circumstances it is easy to determine the presence of the plaques, and the conditions are such as to render it almost impossible that they

should arise from the disintegration of the other corpuscles. The balance of testimony is strongly in favor of the views of Osler, Hayem, Bizzozero, that they are preëxistent, independent blood elements.

Their origin does not appear to have been determined, but their relation to the development of the red corpuscles, and to the process of coagulation, are questions which have aroused very considerable interest. Hayem gave the term *hæmatoblast* to the corpuscle, believing that it represented the early condition of the red corpuscle, of which the microcyte was an intermediate stage. The discoid shape, the gradations in size, the abundance in the blood in the young, and in the adult in conditions when blood-making is active, favor this view; but other observers have not been able to detect the gradual tinting of the plaques, and the intermediate forms which Hayem describes, and their relation to the regeneration of the corpuscles remains doubtful.

An important part of the work of the past few years on these bodies relates to their connection with coagulation and thrombosis, and the facts which are given in the third lecture, if corroborated, will necessitate a modification of the current views of the physiology of these processes. From the first, Hayem insisted that the *hæmatoblast* played an important rôle in coagulation, but his observations did not arouse the attention which they deserved. Since the issue, however, of Bizzozero's paper, in 1882, the subject has been very carefully studied, and the evidence has gradually accumulated in favor of the view that these bodies share, at any rate, with the colorless corpuscles in the formation of fibrin. That the leucocytes undergo disintegration as coagulation proceeds, would appear to be established by the experiments of Schmidt's pupils and of Woolbridge, and yet we are told in the study of the histogenesis of fibrin with the microscope, under conditions the most favorable for the detection of any changes in the colorless corpuscles, it does not seem possible to demonstrate their participation in the process. There is a glaring contradiction here which subsequent observations must explain. The evidence brought forward by those who maintain that the plaques are important agents in coagulation, may be thus summarized: First, they are the elements which immediately adhere to any foreign body within the vessel, or to its cut edges, if wounded; second, in circulating blood the plaques may be shown

to be the bodies which aggregate upon any laceration and form the basis of the thrombi so produced ; and third, they compose the structures known as white thrombi.

It is to be hoped that the presentation of this subject will stimulate further research, and enable us before long to pronounce more definitely on the relation of these elements to blood formation.—*Medical News*.

NOTES.

A CORRESPONDENT of the *Union Médicale* states that planting *datura stramonium* among the vines has killed the phylloxera.—*British Medical Journal*.

MYRTOL.—Myrtol has only been, hitherto, studied as a curiosity, Dr. Linarix, in his doctoral thesis, *De l'Emploi du Myrtol*, gives a complete account of the properties of this substance. Myrtol is both an antiseptic and a disinfecting agent. By its presence it prevents the decomposition of fermentative and putrescible organic substances ; applied to the skin, it does not produce the slightest irritation, if the epithelium be intact. If there be a slight abrasion, a few drops produce a very trifling burning sensation, which quickly goes off. Myrtol stimulates the digestive faculties ; all who use it find their appetite increased. In small doses, it acts as a sedative. It is eliminated by the lungs and kidneys, and has also a powerful balsamic action, but is more easily tolerated than most balsams. Its use is not followed by dyspepsia, nor by any of the other troubles attending the use of balsams in general. Dr. Linarix says that myrtol does not produce the same result at all periods of the affections of the respiratory system : in subacute and chronic catarrhal affections, it should be administered when fever has subsided ; then the sputa become less abundant, also less purulent. Six capsules daily, each containing fifteen centigrammes of myrtol, form a moderate dose, which should be taken before meals.—*British Medical Journal*.

ADONIDIN.—This drug, which is the glucoside extracted from the plant *Adonis vernalis*, belongs to the natural order Ranunculaceæ. It

was first employed by Dr. Botkin, of St. Petersburg, but the first published recognition of its physiological and therapeutical properties was due to Bubnoff, who died recently. Two years later, Vincenzo Cervello isolated the active principle, which he found to belong to the group known as glucosides. He carried out his experiments with this drug in the laboratory of Schmiedeberg at Strasburg. The active principle is an amorphous colorless mass, without any characteristic smell, and intensely bitter. It is only slightly soluble in water or ether, but much more so in alcohol. To isolate it, the leaves of the plant must be macerated in a mixture of two parts of water to one of alcohol for ten days; the resulting solution is treated with acetate of lead, and the precipitate separated by filtration. The adonidin is then obtained from the filtrate, by means of tannic acid and with the addition of a few drops of ammonia. This compound of tannate of adonidin is washed and decomposed by acids of zinc and alcohol. The impure adonidin so obtained is purified by successive crystallizations in a mixture of alcohol and ether. The drug may also be administered in the form of an infusion or of a watery extract. Injected into the cruel sheath of a frog, the heart being laid bare, the first effect noticed is a marked increase in the ventricular contractions followed by slowing. The ventricle looks pale, the auricular appendix and large veins are dilated, and finally the heart stops in systole. The same effects have been observed in the case of the dog and rabbit, a diminution in the number of heart-beats and elevation of the blood-pressure first occurring, followed by an increase in the pulse rate and blood-pressure, finally the heart beats tumultuously, and the blood-pressure falls. Dr. Durand, of Lille, has published notes of several cases of mitral regurgitation, with and without narrowing of the mitral orifice, in which he has employed the drug. Stated briefly, the effects of the drug bear principally on the heart, but it also possesses marked diuretic properties. Irregularity and want of rhythm of the heart-beats are diminished and relieved, but the pulse is rendered distinctly slower, in one or two cases to such an extent as to render it advisable to discontinue the use of the drug. A rise in blood-pressure invariably follows its administration, and a small, weak pulse is converted into a full, strong one. In doses of two centigrammes (about one-third of a grain) of adonidin, the quantity of urine in the twenty-four hours was doubled, and with four centigrammes (three-fifths of a grain) trebled these effects thus corresponding to the increase in the

dose. In larger doses (three grains), considerable vomiting and diarrhoea, with persistent nausea, were induced. The drug is said not to cumulate as does digitalis; but this is an assertion which must be necessarily difficult to prove.—*British Medical Journal*.

SACCHARINE AN INTENSELY SWEET SUBSTANCE FROM COAL-TAR.—This remarkable substance, as prepared by Fahlberg, of New York, is made from toluene, a derivative of coal-tar. It is a white, crystalline substance, difficultly soluble in cold water, more easily in hot, crystallizing out on cooling in short, thick prisms, apparently monoclinic. *Saccharine* melts at 200° C., partially decomposing and giving off the smell of bitter almonds. Even when the amount present is so small as one part in 70,000 of water, the neutralized solution has a distinct sweet taste—as sweet, that is, as that of one part of cane or beet-root sugar in 250 parts of water: so, therefore, *saccharine* would seem to possess 280 times the sweetness of ordinary sugar. Its salts possess a strongly saccharine taste. Aducco and Mosso, studying the physiological action of this body, found that frogs could be kept for days, and with impunity, in a neutralized watery solution. Dogs also exhibited no ill effects when *saccharine* was discovered unchanged in the urine; it seems to undergo no change in the body. It does not influence the quantity or specific gravity of the urine, nor does it cause any change in the urea and sulphuric acid excreted; the chlorides are slightly increased. The presence of *saccharine* in the urine delays decomposition. Stutzer, as well as Aducco and Mosso, obtained similar results in the human subject, 5 grms. daily having no ill effect, passing away by the kidneys and appearing neither in the saliva, nor in the milk, nor in the fæces; the appetite remained unaffected. Now, 5 grms. of *saccharine*, it must be noted, are equal in sweetening power to more than two and a half pounds of sugar. From this it will be seen that Fahlberg's *saccharine* may become, in certain cases, a useful substitute for sugar. In diabetes, Dreschfeld has determined no alteration, either in the quantity of urine or in the amount of sugar passed. According to Levinstein, diabetic patients in Berlin have been treated with it for several months without experiencing any ill effects. Its use is further indicated by obesity. *Saccharine* has scarcely any retarding effect on the digestion of either proteids or hydrocarbons, and in two cases of acid dyspepsia Dreschfeld found that it relieved some of the troublesome symptoms. Stutzer has

noticed that when added in small quantities it increases the diastatic action of malt in presence of sugar. As an indication of other possible uses, it may be remarked that Levinstein, at a meeting of the Society of Chemical Industry, in Manchester, exhibited a specimen of quinine, in which the bitter taste had been masked by the addition of a small quantity of saccharine.—*J. G. Adami in Medical Chronicle.*

ALBUMINURIA IN HEALTH.—The occasional appearance of albumen in the urine of apparently healthy persons is a fact of no mean clinical importance. The British practitioner is quite aware of the usually grave signification of albuminuria, even when the albumen is scanty, and he is perfectly cognizant of the ordinary chemical test for that compound. Hence it is important that he, as well as the hospital physician, should not jump to the conclusion that a trace of albumen necessarily means serious kidney-disease. Dr. C. von Noorden, of Giessen, has recently contributed a monograph "On Albuminuria in Healthy Persons, to the *Deutsche Archiv für Klinische Medicin.* He classes "physiological" albuminuria into three groups. In the first group, the albuminuria is generally found in weakly youths between the ages of puberty and twenty, rarely in children, or in adults. The presence of albumen is discovered in these cases, either during clinical statistical researches, or else in persons who send for the medical attendant because they feel faint, weak, or otherwise slightly indisposed. The proportion of albumen differs greatly at intervals of a few hours. It may run up from 0.0 to 0.5 per cent. or higher, in a single morning. Rarely, if ever, is the urine continuously albuminous all day. These conditions are very characteristic of physiological albuminuria, and do not exist in any form of nephritis. The urine is pale, clear, and generally, but not always, of high specific gravity. The albumen is always coagulable on boiling. Occasionally a globulin-like compound has been detected in excess of the serum-albumen. Casts very rarely are found, and if present, they are hyaline, never epithelial. The albumen is always to be found in greatest quantity before noon. In some cases of physiological albuminuria no abnormal general condition could be found; in others, muscular pains, errors of diet, or mental excitement have been observed and assigned as causes of this condition. No evidence of renal disease has ever been proved, nor of altered conditions of the blood. Dr. von Noorden believes that it is more likely due to blood-changes themselves, possibly caused

by slight renal disease, than by disturbed filtration in the tubuli uriniferi, as Leube has suggested. In the second class of cases, mucin is present as well as albumen. In this case, again, the albuminuria is most marked before noon. The mucin might be derived from the lower part of the urinary tract, or from the kidney itself. The proportion of albumen is very variable and much influenced by bodily exertion. In raw recruits it is most abundant after heavy drill. Dr. von Noorden believes that this class represents mild vesical catarrh. The third class of cases, on the other hand, appears to represent slight renal catarrh, insufficient to cause the general and local symptoms of renal disease, just as, in the second, the subjective signs of cystitis are present. In striking contrast to the first class, the albuminuria may last for a whole day and then disappear, or may be found only before noon, yet in regular, but very small, proportions. No mucin can be detected, but hyaline and sometimes epithelial casts, and even red corpuscles, are generally present. The first class is evidently the purest kind of "physiological" albuminuria. Yet this term is still questionable, for a trifling amount of disease in the genito-urinary apparatus is a more probable cause of the condition in question than any unusual "physiological" tissue-change, caused by exertions after heavy meals, etc. Physiological albuminuria, then, must be held to imply albuminuria in persons who appear to be otherwise healthy, though local disease is, in all probability, present to an extent insufficient to produce any other symptom.—*British Medical Journal*.

ARTIFICIAL MILK.—It is a curious fact that when a fat is boiled with caustic potash in the relation of fifty parts of alkali to one hundred parts of fat, it is gradually dissolved: the glycerin, however, is not set free. If the alkaline solution is now acidified, the original fat will be regained; but it will have new properties. It is now soluble in alcohol, and when added to ordinary fats, even in very small amounts, it imparts to them the property of forming complete emulsions with extraordinary dilute solutions of the alkaline carbonates. In order to make a liquid which shall possess the appearance and the most important chemical properties of milk, Chichkoff proceeds as follows: Some of the modified fat is added to ordinary fat, and the mixture emulsified with a dilute solution of potassium or sodium carbonate. Calcium and magnesium phosphates are then added in the form of powders, and also a certain amount of casein, which has been

rubbed up with a little ammonia. Another solution is now made by dissolving milk-sugar in dilute hydrochloric acid and adding a solution of albumen. The two liquids are now cautiously mixed, the acid liquid being poured into the alkaline one, and the mixture well stirred after each addition. This artificial milk does not contain the ferment occurring in natural milk, but if a little sour milk is added to it, a thick layer of cream soon rises, which possesses all the properties of real cream, and can be worked into butter. The artificial milk also curdles and forms whey. The taste of the milk, however, is not quite as palatable as it might be; but this may be improved by further experimenting. This peculiar power of the modified fat to form emulsions may be of use in pharmacy.—*Druggist's Circular—Therapeutic Gazette.*

CHILDBIRTH DURING AN ATTACK OF SMALL-POX—THE INFANT NOT INFECTED.—Dr. R. J. Banning writes to the *British Medical Journal*, February 20, 1886, an account of a case in which a woman, during the height of a tolerably severe attack of confluent small-pox, gave birth to an infant perfectly uninfected. The baby was vaccinated within a few hours after birth, and successfully, both mother and child doing well. This fact is not in accordance with the general opinion that a child born during a developed attack of small-pox in the mother must necessarily be infected.—*Therapeutic Gazette.*

HOPINE, which was lauded as the active principle of wild American hops, seems to have come to grief. Its properties were so nearly like morphina, that it was carefully examined and found to be nothing more than morphina disguised by the flavor of hops. The manufacturers are English. When we consider the abundant opportunities afforded by scientists to perpetrate similar frauds, it speaks well for the profession that cases similar to this are exceedingly rare. The fraud was detected in Paris.

BILE AS AN ANTISEPTIC.—Bile is said to have an important function to perform as an antiseptic. Possibly it restricts the formation of certain of the lye products, such as indol resulting from pancreatic digestion, but it is not *aseptic*, since bacteria abound and thrive in the intestine.

THE VANDERBILT DISPENSARY.—The heirs of the late Wm. H. Vanderbilt have united in giving to the Trustees of the College of Physicians and Surgeons of New York the sum of \$250,000, to be expended in the erection and endowment of a clinic building.—*Medical News*.

TEST OF THE QUALITIES OF COCAINE.—The *London Medical Record* states, on the authority of the *Pharmaceutisch Weekblad*, that the presence of hygiene and egonine in the hydrochlorate of cocaine may be detected by treating the salt with concentrated sulphuric acid. If the salt is pure, the result is a completely colorless solution. The impurities will stain the solution.—*Medical News*, April 24, 1886.

THE VALUE OF SANITATION IN ITS NATIONAL ASPECT, AS COMPARED WITH OTHER PUBLIC INTERESTS—An address by James E. Reeves, M.D., President, before the American Public Health Association, at Washington, D. C., December 8th, 1885.—We are much pleased at the receipt of the above in the form of a neat pamphlet, having for its frontispiece a steel engraving of the author.

DR. FLINT'S SUCCESSOR.—Dr. Edward G. Janeway has been appointed Professor of the Principles and Practice of Medicine in the Bellevue Hospital Medical College, in the place of the late Dr. Flint. In recognition of Dr. Flint's long and distinguished services at Bellevue Hospital, the Commissioners of Charities and Corrections have decided, at the request of the Medical Board, to put up in that institution a mural tablet to his memory.—*Medical News*, April 24, 1886.

THE *Detroit Lancet* infers from the last JOURNAL that we find in North Carolina that the Board of Examiners does not correct the evil of the newspaper puffing of some doctors. It is true the remedy has not yet cured this ill in the profession, but we have strong belief that it will effect in the future more than it has done in the past, and we assure our contemporary that in North Carolina we are well pleased with what the licensing law is doing for the profession. We trust that Michigan will not longer lag in the field, but imitate the example of Illinois and Iowa—yes, and even do better.

ANNUAL MEETING NOTICES.

THE MEDICAL SOCIETY will meet in New Bern on Wednesday, 19th, Thursday, 20th, Friday, 21st, May.

THE NORTH CAROLINA BOARD OF HEALTH will meet in New Bern on Wednesday, 19th, Thursday, 20th, Friday, 21st, May.

COUNTY SUPERINTENDENTS OF HEALTH are respectfully requested to be present to consult with the Board of Health on mutual interests.

THE BOARD OF EXAMINERS OF NORTH CAROLINA will meet in New Bern on Tuesday, the 18th of May, and continue in session until all candidates are examined.

DR. R. R. ROBERSON, a member of the North Carolina Medical Society, died at his residence, at Kyle's Landing, in April.

DR. J. H. SCARBOROUGH, of Trenton, Jones county, died suddenly, on the 20th of March. He was a young physician and much esteemed by the citizens of his county, notably for his conduct during the outbreak of small-pox in Trenton. He was a licentiate of the Board of Examiners and a member of the Medical Society of North Carolina.

BOARDS OF EXAMINERS.—Maryland failed to get a licensing law because to effect it required a compromise with, or recognition of, homœopaths. Iowa is about to secure a licensing law, but by the text of it, we presume, it was necessary to recognize the "different schools."

BOOKS AND PAMPHLETS RECEIVED.

Cocaine in Hay Fever. Seth S. Bishop, M.D.

Practical Hints about Lymphatic Diseases of the Eye. C. A. Bucklin, M.D.

A Lecture on Piper Methisticum. Dr. L. Lewin. Parke, Davis & Co., Detroit.

Catarrh. Report of Fifty-Two Cases, with Remarks. Joseph A. White, M.D.

Practical Notes on the Treatment of Skin Diseases. II. Eczema. George H. Robé, M.D.

Catarrh of the Upper Air-Tract. Especially its Effects on the Ear. Samuel Sexton, M.D.

On the Causation and Nature of Hypertrophy of the Prostate. Reginald Harrison, F.R.C.S.

On the Necessity of Organization of the Medical Profession. F. E. Daniel, M.D.

The Methods of Bacteriological Investigation. Dr. Ferdinand Hueppe. D. Appleton & Co.

Tetanus. Lecture delivered at the College of Physicians and Surgeons, Chicago. N. Sunn, M.D.

Influence of Naso-Pharyngeal Growths, Obstructions and Hypertrophies upon the Hearing, with a Few Cases in Point. Joseph A. White, M.D.

What is Medicine? Annual Address delivered before the American Academy of Medicine at New York, October 28, 1885. Albert H. Gibon, A.M., M.D.

Practical Remarks and Suggestions in Regard to Diseases of the Ear, Throat and Nose, with a few Cases in Point and Cures of Hay Fever. Joseph A. White, M.D.

Report of a Case of Cæsarian Operation, with some Comments.
Edward W. Jenks, M.D.

The Bromides. Their Physiological Action, Therapeutical and Toxic Effects Alone and in Combination. Wm. B. Hazard, M.D.

Information Concerning Newer Materia Medica, Standard Medicinal Products, Fine Pharmaceutical Specialties. Epitomized for the Use of the Busy Physician. Parke, Davis & Co.

B. H. Warner's "Guide to Washington." Visitors to Washington will find in this little pamphlet much assistance in seeing the points of interest in and around the city. It is gotten up in convenient size and shape for the pocket, and is profusely illustrated.

PEACH-ROOT TEA is an efficient remedy for epilepsy, according to Dr. J. L. Dorset, of Dorset, Va. (*Medical Age*.) Three or four ounces of an infusion are to be given daily. Dr. Dorset reports one case in confirmation of his view.—*Medical Record*.

REMOVAL OF A TUMOR OF THE BRAIN.—Dr. J. O. Hirschfelder, of San Francisco, reports a case of brain tumor in which the disease was diagnosticated, its locality mapped out, and an operation performed. The bone was removed, and the tumor found as expected. It was a gliomatous mass, however, and infiltrated so that only a part could be removed. The patient died eight days later. The symptoms pointed to a tumor of the middle part of the right post-central convolution, and it was found in that locality.—*Medical Record*.

THE RADICAL TREATMENT OF HERNIA SACS BY TORSION.—For the past twelve months Mr. Richard Davy has been availing himself of the mechanically simple method of torsion of the hernial sac, so as to effect its complete obliteration. This plan, he urges, inevitably conducts the process of centripetal occlusion and consolidation to the structural neck of the sack; does away with the necessity of ligatures, obviates wounds of the peritoneal membrane, effectually excludes air and presents the maximum amount of peritoneal superficies for agglutination and eventual plugging. Of course no surgical treatment is invariably applicable to operative cases, but it is alleged that a wide field is open for this therapeutic agency in strangulated or non-strangulated herniæ, and opened or unopened sacs. Mr. Davy's fourth successful and successive case (voluminous inguinal left hernia in a woman), is at present convalescent in the Westminster Hospital.—*British Medical Journal*.

READING NOTICES.

Mr. Chamberlain :—DEAR SIR :—In answer to your note asking the effect of your Water Closet Seat, I will state that I had for several years been a great sufferer from Piles, at times unable to attend to my business. Since I commenced using your Seat, about two months ago, I have not been troubled with them.

Respectfully,

S. B. BRADLEY.

Tarboro, N. C.

—(o)—

I HAVE prescribed Aletris Cordial to Miss K., age 30. Chronic endometritis of two years standing, accompanied by retro-version ; after correcting the latter the Aletris Cordial was prescribed for one month, resulting in cure. Having used Aletris Farinosa for fifteen years past, I do not hesitate to recommend Aletris Cordial as the best preparation of that agent I have seen.

Salem, Ohio.

L. HENDERSON, M.D.

—(o)—

J. L. GRANT, M.D., of Carrollton, Mo., states : “Wishing to be of benefit to any poor sufferer with Asthma, I will say that my wife is subject to Asthma and has been for years. She had a severe headache during one of her spells, and I gave her a dose of TONGALINE, which relieved her of the Asthma. I have tried TONGALINE with her several times since when she was suffering, and in every instance the Asthma was checked. I recommended it to Mr. Joseph Black, a young gentleman of our town, and he says it relieved him every time taken. I know you do not recommend it for Asthma, but I can safely do so.”

NORTH CAROLINA MEDICAL JOURNAL.

THOMAS F. WOOD, M. D., Editor.

Number 5. Wilmington, May, 1886. Vol 17.

ORIGINAL COMMUNICATIONS.

BALTIMORE GYNÆCOLOGICAL AND OBSTETRICAL SOCIETY.

The regular meeting was held February 9th, 1886. The President, George W. Miltenberger, M.D., in the chair. William E. Mosely, M.D., Secretary.

Dr. A. F. Erich read the following paper :

DIAGNOSIS OF FIBRO-CYSTIC TUMOR OF THE UTERUS—LAPAROTOMY AND SUPRAVAGINAL AMPUTATION OF UTERUS.

Mrs. A. McN., American, age 40 years, widow, entered the Maryland Woman's Hospital December 15th, 1885. Married when 19 years old; she has had no children or abortions. She menstruated first when 13 years old, generally every four weeks, sometimes the interval being but three weeks; amount usually small and the duration four to five days. She is very anæmic. Five years ago she first noticed a hard tumor the size of a hen's egg in the lower portion of the abdomen; it grew rapidly during the first two years and a half, since then more slowly. It varied in size and had lately

become somewhat smaller. Has had bloody discharges from her vagina lasting six weeks, and has at times gone as many weeks without any discharge. Has frequently suffered from pains resembling labor. Her health has been gradually growing worse ever since she first noticed the tumor. Has also been subject to attacks of nausea, vomiting and diarrhoea. Physical examination revealed a tumor the shape of an enlarged uterus, extending from the pubes to a little above the umbilicus, movable and continuous with the cervix uteri. The depth of the uterus, as measured with the probe, was five inches. Temperature, pulse and respiration normal. The consistency of the tumor seeming rather softer than that of a fibroma, the aspirator needle was introduced and about a fluid drachm of a colorless, serum-like fluid was obtained, which, upon microscopical examination (by Dr. Keirle), did not furnish any characteristic appearances that were calculated to assist in the diagnosis. The aspiration was not followed by any unpleasant effects. The diagnosis arrived at was—interstitial fibro-cystic tumor of the uterus—adopting the definition as given in Prof. Thomas Billroth's "*Handbuch der Frauenkrankheiten*," Band I., Abschnitt III., Seite 102. According to which all fibroid tumors that contain collections of fluid within their stroma are fibro-cystic tumors. These include lymphangioma, myoma telangiectodes scavernosum (Virchow*) and myxomyoma, of which latter Gusserow says (page 103 of Billroth's work, above quoted), that microscopically it would be difficult to distinguish this form from sarcoma. The great danger of supravaginal amputation of the uterus (the only radical cure of the case) being fully stated to the patient, she elected to take the risk rather than to continue to lead the life she had been leading. The patient, being extremely anæmic, the palpebral conjunction being perfectly white, she was put upon a preparatory treatment consisting principally of good food, iron and quinia, until, after the expiration of six weeks, she seemed to be strong enough to make a successful operation possible. The operation was done February 1st, under all the usual antiseptic precautions, and occupied three hours. The abdominal incision made in the linea alba, extending from an inch and a half above the pubes to the umbilicus, had to be extended to a little over an inch above the

**Geschwulstlehre* III. p. 124.

umbilicus before the enlarged uterus could be rolled out. Both ovaries, considerably enlarged, rolled out with it. Finding the diagnosis verified and no adhesions present, an Esmarch gum tube of the thickness of a little finger was tied firmly around the cervix as low down as practicable, including a considerable portion of the broad ligaments. The greater portion of the uterus was then removed, taking care to leave enough of the cervix to prevent the gum tube from slipping. The broad ligaments were next secured by ligatures before they had time to slip from under the gum tube, which they are apt to do. As much of the cervix as could be safely removed was then trimmed out in the shape of a funnel with thin edges. These edges were brought together antero-posteriorly by, first, a row of deep sutures to prevent bleeding, and, second, a row of superficial sutures to bring the edges of the peritoneum in good apposition. Being unwilling to trust a mass ligature around so thick and rigid a stump as the remnant of the cervix presented, much time was spent in arresting hæmorrhage from the stump by the introduction of deep sutures. The rubber tube had to be loosened and tightened many times before all the bleeding points had been thus secured. The blood lost during the whole operation could not, however, have amounted to more than a few ounces. The vagina was then carefully washed out with the bichloride of mercury solution, an opening made at the lowest point in Douglas cul-de-sac, and a rubber drainage tube with a cross-bar, to prevent it from slipping out, and long enough to reach from this space to the rubra, inserted. The vagina was filled with salicylated cotton and the external opening of the drainage tube covered with the same material in order to exclude the air. The abdominal incision was closed, in the now usual manner, deep and superficial silk sutures, and dressed antiseptically. Fully realizing the gravity of the operation, only such assistants as were absolutely necessary were admitted to the operating room, in order to make the risk from infection as small as possible. Prof. Rohe administered the ether, and Dr. Clark, the resident physician, the three house students, Messrs. Lindley, Wise and Robertson, with the matron, Mrs. Warner, all dressed in freshly-washed linen, were all that were permitted to be present. The subjoined pulse and temperature chart furnishes the subsequent history in a condensed form. Dr. Keirle's report of the necropsy gives as the cause of death cardiac

asthenia and thrombosis, and says that the heart was so flabby as to flatten out of shape when laid upon the table. His report also shows that there was no secondary hemorrhage, that the drainage had been efficient, and that septicæmia had been prevented, as shown by the absence of decomposing fluid in the abdominal cavity, the temperature and pulse changes, and the fact that a firm clot of blood was found in the heart and pulmonary vessels, while after death from septicæmia the blood is generally found of the consistency of tar. The manner of operating was that described by A. Martin in his "*Pathologie und Therapie der Frauen-Krankheiten*," with such slight modifications as personal experience suggested, or were made necessary by the conditions under which the operation was done. Martin places a ligature around the cervical stump, to which, with my experience with a cat-gut tourniquet in cervix operations, I felt I had no right to trust the life of the patient. As I was not able to procure a drainage tube provided with a cross-bar, as he describes, I was compelled to extemporize one by cutting a hole through a gum tube near its end, and then forming a cross-bar by splitting a small piece of the same tube and passing one of the pieces through the holes formed at the upper end of the drainage tube. This piece, turned with its concave surface downwards, gave an opening on each side of the tube immediately under the cross-bar. The opening in Douglas' cul-de-sac for the passage of the tube was made by pushing the point of a uterine dressing forceps, with a boring motion, through the peritoneo-vaginal septum, from the vagina into Douglas' space, the fingers of the left hand being used to make counter pressure. This instrument being so very blunt, the opening was made without the loss of blood. The lower end of the tube was now seized between the blades of the forceps and drawn down until its cross-bar rested upon the floor of the space. The necessity of the tube was made manifest by an almost constant dribbling of bloody serum during the first twenty-four hours. The tube was removed on the morning of the fourth day. In reference to the condition of the abdominal cavity, Dr. Keirle reports: "There was no attempt at union of the abdominal incision, the lower half of which is discolored. The stump of uterus is observed united by sutures and lymph. Injection with 2 oz. glass syringe, nozzle introduced through cervical canal, does not, until after fourth trial, spirt in three fine jets through incision."

Around the opening made for the drainage tube he found "a layer of lymph (fibrin), of irregular surfaces, which extends thence on the pelvic peritoneum 2 c. m. area. Fibrin also agglutinates some coils of small intestines to uterine stump. This is a limited pelvic peritonitis. No further inflammation exists in the abdominal cavity, in which the other organs and structures are normal." The tumor was imbedded in the anterior wall and fundus of the uterus, the thickness of the anterior wall being six inches, that of the posterior only three-quarters of an inch. Weight of whole uterus and tumor three pounds and eight ounces. Upon section the tumor presented a pink-colored transparent tissue, seemingly consisting of a delicate network of fibres and capillary vessels separated by transparent fluid, looking very much like a section through connective tissue in œdema, and corresponding very nearly to a description of myxomyoma as given by Virchow. Dr. N. G. Keirle, the pathologist to the hospital, states: "Its* microscopic histology is that of the medium sized spindle cell sarcoma."

First Day — 6.30 P. M.	Temp. 96.	Pulse 120.
9.30 P. M.	" 98.	" 108.
Second Day—10.00 A. M.	" 101.	" 110.
4.00 P. M.	" 100.	" 114.
10.00 P. M.	" 101.6.	" 130.
Third Day —10.00 A. M.	" 102.2.	" 120.
4.00 P. M.	" 100.8.	" 130.
10.00 P. M.	" 101	" 114.
Fourth Day—10.00 A. M.	" 103	" 120.
12.30 P. M.	" 104	" 150.
2.30 P. M.	" 104.8	Imperceptible.
3.13 P. M.	Death.	

Dr. W. P. Chunn asked Dr. Erich the character of the fluid withdrawn by aspiration; did it coagulate on exposure to air? He had always considered that if the fluid coagulated it was a proof of fibro-cystic tumor, as the rule, to which he knew there were exceptions, was, that fibro cystic fluid was blood minus its corpuscles, and would coagulate when exposed to the air.

Dr. Erich answered that, as the amount of fluid obtained was

*The microscopical examination was made after the case was reported.

very small, and, as it was wanted for microscopical examination, he did not test its coagulability. As he said in his paper, the microscopical examination threw no special light on the diagnosis.

Dr. T. A. Ashley said that Dr. Erich had stated that he had used thorough antiseptic precautions in this operation. He would like to ask the doctor what antiseptic method he had employed?

Dr. Erich replied that the ceiling, walls and floor of the patient's room were swept and washed, and then sprayed with a carbolic acid solution. Only those required as assistants were permitted to be present, and all were dressed in freshly-washed linen, their fingernails cut and hands thoroughly cleaned. Carbolic acid solution was used for instruments, and a 1 to 2,000 solution of bichloride of mercury for sponges, etc. The dressings for abdominal wound and vagina were described in the paper.

Dr. Ashley said that the object of his question was to elicit some discussion on the use of antiseptics in abdominal surgery. As is well known, opinions differ very widely among European abdominal surgeons in respect to the use of antiseptic agents within the abdominal cavity. While thorough Listerian principles, including the use of the spray, are enjoined by a surgeon of Mr. Thornton's acknowledged ability and experience, all antiseptic agents are discarded by so successful an operator as Mr. Lawson Tait. One fact is clear amid all the confusion respecting the details of antisepticism, and that is the great value of absolute cleanliness, which is the essence of Mr. Lister's teachings. Moreover, statistics show the great value of these principles in abdominal surgery, and he would be indeed a bold operator who failed to apply these principles, modified only as to details.

Dr. Chunn questioned the advisability of introducing a drainage tube in those cases where there were no adhesions, and consequently no blood or fluid of any kind left in the peritoneal cavity. This opinion he based upon the teachings of Mr. Keith. He considered that if any fluid did collect in Dr. Douglas' space it could be easily detected and gotten rid of. He was of the opinion that a woman of forty, with a growth like that shown, could be tided over until after the menopause, which could not have been many years distant in the case reported.

Dr. H. C. P. Wilson questioned the report that some distinguished operators entirely ignored antiseptics. Some, he was aware, did not

use the spray, but he was under the impression that they were careful to see that all sponges, instruments and appliances that had been used in one operation were rendered thoroughly antiseptic before being used in another. Several acids, bichloride of mercury and other agents were antiseptic, and if any of them were used to guard against septicæmia those employing them could not be said to be opposed to antiseptics in abdominal surgery. As far as he personally was concerned, he still had great faith in antiseptics, especially in hospital practice, and he favored the use of the spray in such cases, having it stopped only just before beginning the operation. He never could understand why we should be so careful in disinfecting sponges and not use as great precaution to render antiseptic the air around hospital operations. In one case he did a laparotomy upon a patient at the same time that there was a case of erysipelas in the next room, and the result was uninterrupted recovery. At another time he removed an ovarian tumor from a woman who occupied the same room and bedstead that had been vacated only ten days before by a patient having a sloughing fibroid from which the stench was so great that it was nauseating to enter her room and rendered the air of the whole floor offensive. In this room the carbolic spray was used liberally for several hours before the operation, and especially under, around and in the bed. In some cases he washed out the abdominal cavity with bichloride solution before closing the incision.

Dr. Ashley said he had not had any opportunity of seeing Mr. Tait operate, and so was not personally familiar with his methods, but Mr. Tait had published the fact that he had no faith in the so-called antiseptic agents, and believed they did more harm than good. At one time he (Mr. Tait) had practiced the Listerian ideas in all their details, but they disappointed him and he gave them up. He took water from the tap and put it into the basin for the sponges, over the instruments and into the abdomen, but he practiced the most rigid enforcement of cleanliness. Dr. Ashley had recently, through the courtesy of Dr. Chambers, the resident physician, had an opportunity to examine Dr. T. G. Thomas' private hospital from cellar to garret. Every idea that prevails in its construction and management has reference to purity of air, scrupulous cleanliness and absolute comfort. But, with every modern convenience for ventilating, heating and lighting, Dr. Thomas still

employed a thorough system of antiseptics, and in every detail of his operative work reference is had to disinfection and absolute cleanliness. Dr. Ashley expressed the opinion that, in our country, at least, omission of antiseptic precautions in abdominal surgery would mean an increased death rate and that no surgeon could, in justice to his patient or to his own reputation, afford to hazard an operation within the abdominal cavity without using those methods of antisepticism that are expressed in the Listerian idea.

Dr. A. asked permission to relate the following case, which he considered of interest in connection with the case reported by Dr. Erich. The patient was a negro woman, age 31, and had been married between nine and ten years. Her youngest child was about eight years old. For four or five years she has lost considerable blood during menstruation and has noticed an enlargement of the abdomen, but attributed the latter to taking on flesh. For several months past menstruation has been very profuse, generally lasting about eight days. During the inter-menstrual period she has a discharge from the vagina of a clear watery fluid and ranging in amount from a teacupful to a pint in twenty-four hours. The discharge of fluid is spasmodic in character, deluging her clothing. Her general health is at about par. Physical examination reveals a globular tumor about the size of a uterus at the fifth month of pregnancy. The tumor has thick, dense walls, and is largest at its upper part. The cervix uteri is normal in size and feel. The sound enters the uterus $5\frac{1}{2}$ inches, is grasped tightly by the lower segment, but rotates freely in the cavity near the fundus. Dr. A's diagnosis is, a fibroid of the uterus undergoing cystic degeneration. The indications for treatment are palliative, as in the present condition of the patient no operative procedure would be justifiable. The case is of interest from the fact that the woman's health remains so good and that the cyst should have opened into the uterine cavity and allowed its contents to discharge as described.

Dr. W. E. Mosely thought one great source of misunderstanding in regard to antisepticism came from the inclination people showed to limit disinfectants to the so-called antiseptic solutions and powders. Those surgeons who decry most loudly the use of antiseptic precautions are very careful to expose their sponges, etc., to a high degree of heat before using, and thereby make use of the most powerful means of rendering them aseptic. Live or free, dry

steam is found to be the most effective agent in disinfecting on a large scale. The numerous antiseptic preparations have their places, but many of them are almost or quite useless unless used in very concentrated form, and others are poisonous or irritating, and caution must be exercised in their application.

Dr. Erich said that in institutions having arrangements for disinfection by heat, much could be done by that means, but in our own hospitals he thought it necessary to have recourse to antiseptic fluids.

If any question arose as to the diagnosis of the case reported, he would refer those present to Billroth's work mentioned in his paper, and ask a comparison of the specimen with the description found there. He thought many cases were diagnosticated fibro-cysts which were not really such, as, for instance, one operated upon by himself, which proved to be an old abscess of a broad ligament. The rule laid down by authorities is, that fibro-cysts contain either blood, serum or lymph, and that the diagnostic value of coagulability of the fluid contents depended entirely upon the character of cystic degeneration. In the seventy cases of fibro-cystic tumors collected by O. Hear only eleven contained fluid coagulating spontaneously.

Regarding the question, whether the removal of a growth, the size of that shown, was a justifiable procedure or not, he thought the social position of the patient had much to do. He considered that a rich woman would have been able to endure the growth for a considerable time, even until the menopause, as she could place herself among the best surroundings and have proper care; but, in the case in hand, the woman was poor and obliged to earn her own living, which the growth prevented her from doing. He had represented fully to his patient all the dangers attending the operation, and she had insisted upon undergoing it. In such cases he thought we had no right to refuse to operate.

He considered the detection of a small amount of fluid in Douglas' cul-de-sac, unless encapsulated, an impossibility, as free fluid would recede upon the slightest pressure from without. The peculiar form of drainage he had adopted was that recommended by Martin, of Berlin, and had been used by him in several cases with the best results.

Dr. P. C. Williams asked for an explanation of the fact that, in

a woman dying of asthenia there should be a temperature of 96° F. immediately after the operation, and that it should rise each day until it reached 104.8° F. on the day of her death. Would not such a range of temperature indicate some inflammatory or septic complication?

Dr. Erich replied that he considered it an advantage to have a slight rise of temperature after an operation, as he thought it indicated a greater amount of vitality in the patient than if it had a tendency to remain sub-normal. That with the closure of the peritoneal edges by the exudation of lymph, there must be some local peritonitis.

Drs. Ashley and H. P. C. Wilson emphasized the importance of taking the patient's social position into account in considering the advisability of any operative procedure, and agreed with Dr. Erich in his conclusions.

Dr. Robert T. Wilson exhibited some surgical needles, the invention of Davis Genese, D.D.S., of this city. Dr. Genese calls his needles "Ividinized Platina Needles." They are made with a platinized gold head, hardened under hydraulic pressure. Needles can be made by this process of any shape or size, and they are said to be indestructible under the pressure of forceps or the action of acids, but can be bent to any desirable curve.

Dr. Moseley thought that, judging from the needles shown, they would be useless in any operation where much force would be required for their introduction. Strong steel needles will often bend, and sometimes break, in the hands of skillful operators, and in such cases a needle which can be bent as easily as the samples would be of absolutely no value. They might be of use in a limited class of cases where their introduction would require but little force.

Dr. Erich said that the danger of the steel needle breaking at the eye could be obviated by heating it at that end and allowing it to cool slowly. This would not interfere much with the temper of the needle at its point.

In his operations for lacerated cervix he uses a tourniquet and supposes he is a marked exception to the rule in so doing. The instrument he uses is his own device and is like a light ecraseur, with cat-gut for a chain. His special reason for using it, aside from preventing hæmorrhage, is that it so benumbs the cervix that he

does not need to use any other means of producing anæsthesia except in the case of very nervous women, when he has recourse to ether or chloroform. The use of this instrument demonstrated to him the fact that, after the parts had been ligated for sometime they would shrink, allowing the bleeding to return and requiring the tightening of the tourniquet, and had thus taught him not to depend upon a ligature in supra-vaginal amputation of the uterus.

Dr. B. B. Browne said that in many cases of deep laceration of the cervix, extending up to and beyond the vaginal junction, he thought it would be difficult, if not impracticable, to apply the tourniquet above the seat of laceration. We asked Dr. Erich how, in such cases, he prevented cutting the ligature of the tourniquet while removing the cicatricial tissue from the angles.

Dr. Ashley stated that he continued to employ the tourniquet in a certain number of cases. He had found it useful in those cases where the cervix uteri was much elongated and when there was hyperplasia and congestion of the cervical flaps. He could verify the assertion made by Dr. Erich as to the necessity of constantly tightening the loop of the tourniquet in consequence of a shrinkage of the tissues. He had never employed cat-gut as a loop, but used very flexible wire.

Dr. H. P. C. Wilson could not see how, in those cases in which the laceration extended up to the vaginal junction, it would be possible to apply the tourniquet so as to clean out the angles without cutting the cat-gut cord. He thought that in certain special cases the instrument might be of use.

Dr. Erich replied that when the uterus was easily movable, by drawing the cervix well down, the tourniquet could be applied above the angles of the deep laceration, even above the internal os. That the only cases in which he had difficulty were those in which there was a very short and conical cervix, or the uterus was fixed, so that it could not be drawn down far enough.

THE INNOMINATE ARTERY was recently ligatured by Mr. Bennett May, of London. The patient, who so far has done well, was a laborer suffering from a large subclavian aneurism. Dr. V. Mott first performed this operation, his patient living four weeks. Dr. Smyth, of New Orleans, is, we believe, the only surgeon who has successfully tied this artery.—*Medical Record*.

SELECTED PAPERS.

SAVING CONDEMNED LIMBS.

Dr. Sampson Gamgee, in the *British Medical Journal*, says :

"A surgeon's responsibilities are never more delicate and weighty than when he is called upon to review a decision to amputate a limb. To the cases elsewhere published,* in which, from inability to coincide with proposed amputations, I have successfully adopted measures to save limbs, brief notes of a more recent case may be added preliminary to comment.

"In compliance with an urgent call into the country, I visited a patient whose leg was to be amputated next day. I gathered from the medical attendant that a fracture through the right ankle had occurred about a fortnight previously ; great swelling having supervened, a considerable number of leeches were applied, and then padded wooden splints. When these were removed, after four or five days' intense suffering, a large wound was exposed on the inner aspect of the limb, which was much swollen. Splints were then discontinued, carbolic acid lotion applied, and amputation advised after consultation with a hospital surgeon.

"I found the limb from foot to knee greatly swollen and tense, of deep red color, and exquisitely sensitive to the slightest touch. The skin, to the extent of several square inches over the tendo Achillis and on the outer part of the leg, threatened disorganization ; and on the inner side of the ankle was an irregularly shaped, deeply excavated wound, measuring from side to side five inches and five-eighths, from above downwards three inches and seven-eighths, and seemingly penetrating in its depressed centre into the ankle-joint. The patient's constitutional state was sound, but pain and want of sleep had produced considerable exhaustion. Unable to concur in the proposed amputation, I advised twenty-four hours' delay, to test the effect of the treatment which I proceeded to carry out. Carefully supporting the limb, I raised the foot and placed on

*Case 49, p. 132, Case 51, p. 137, Case 53, p. 171, Case 84, p. 228, in *Treatment of Wounds and Fractures* by the author, second edition Churchills.

the outer side from the lower third of the thigh downwards, a double millboard splint, gummed and padded three inches thick with dry absorbent gauze and cotton tissue. The splint embraced the sole of the foot, which, as well as the whole inner side of the limb, was padded with equally thick and perfectly smooth folds of the tissue. The whole was now smoothly bandaged with long spirals and without reverses, and with equable but decided pressure. Four six-yard bandages were used. The limb was then placed on the outer side in a swing, and I visited the patient with the medical attendant the next day. Pain had been much less, and the loosened bandages denoted great subsidence in the swelling. Taking the limb out of the swing, the bandages on the inner aspect were cut, and the absorbent tissue, soaked with a great quantity of matter, removed; but the millboard splint on the *outer* side was not touched for some days. The skin was paler and much less sensitive and tense. The same dressing was repeated on the following three days. The improvement locally and constitutionally was then so marked that the question of amputation was not reopened; and henceforward the dressing was only renewed every other day. A considerable slough separated from over the tendo Achillis and the outer part of the leg, and the absorbent tissue before application was lightly sprinkled with some of the following lotion: Four grains of sulphate of zinc, half an ounce of methylated spirits of wine, one ounce of glycerine, and one ounce of water. The wound surface was occasionally touched with solid sulphate of copper. The dense deposit in the leg above the wound softened, and gave evidence of subcutaneous pus, which was carried off by drainage-tubes, one of which was passed several inches up the inner side of the leg, by corkscrew movement, from beneath the upper edge of the wound. Another tube was introduced through a small incision just outside the middle of the tibia. The outer ends of the drainage-tubes were made to project out of the dressings into a tin tray containing dry earth, which could be changed whenever necessary. The more perfectly to immobilize the foot and ankle, a bracket millboard splint was secured on the outer side, so as to embrace the leg just below the calf, and also the outer edge of the foot. Later on, gummed millboard splints were placed on the inner and posterior aspects; and it may give some idea of the amount of padding to state that at each dressing half a pound of the absorbent gauze and

cotton tissue was used. For the first six weeks the dressing was renewed every other day, after that on Mondays and Thursdays. The patient left her bed for the couch at the end of two months; in another fortnight she removed downstairs, and then the wound on the inner side of the ankle was solidly healed, with fair and steadily improving movement in the joint.

"The recovery of the limb was due to a variety of agencies, chief amongst which were immobility, position, pressure, infrequent and dry dressings, with drainage by absorbent tissue, glycerine and tubes. It was remarkable how the very tender limb, which at first could scarcely bear the slightest touch, became comfortable under equable elastic pressure, physiological position and absolute rest. I have elsewhere* recorded a case in which a patient with a tender swollen leg, similarly treated, spontaneously expressed himself in these words: 'It is wonderful how I can bear the limb handled now, and I could not stand a feather touching it last night.' Glycerine in such cases acts as an antiputrescent, and by its great affinity for water powerfully aids absorbent tissues in securing perfect surface drainage, and keeping parts clean and sweet without the use of water. The plan of wound treatment, based on physiological principles, which I have enjoyed the frequent privilege of illustrating in these columns, was strikingly exemplified in the case above related. The limb was in such a condition that it was impossible to foretell its recovery with certainty, and it was only by the utmost care at every dressing that the result was attained. But I was from the first hopeful. In a large proportion of cases in hospital and private practice in which I have been called upon to amputate, I have not touched the knife and have spared the limb. A clear conception of physical and physiological principles, unprejudiced application and combination of therapeutic resources according to the circumstances of particular cases, gentle yet firm, painstaking yet not meddlesome manipulation, are very powerful agencies in saving condemned limbs."—*Medical and Surgical Reporter*.

VACCINATION from the calf is now practiced at four of the public vaccine stations at Calcutta; and Dr. O'Brien, the health officer, reports that it is not now regarded with disfavor by the people.—*Medical and Surgical Reporter*.

*Wounds and Fractures, p. 187.

PRURITUS OF THE ANUS.

Dr. J. B. Johnson, in the *Medical and Surgical Reporter*, offers the following suggestions for the treatment of pruritus ani :

"These local manifestations of disease usually owe their origin in part to derangement of the general system, and any indication in this respect should be attended to at once. If the patient's tongue is furred, he should have five grains of calomel and five grains of blue mass made into a pill once or twice a week (for a week or two), followed by a saline purgative the morning after the mercurial dose, and take for a few weeks (with or without the addition of five drops of Fowler's solution with each dose) the following alterative ;

℞. Iodide potassium,	3 ij.
Aqua distil.,	3 vj.
Fld. ext. quassia,	3 ss.

Sig.—Shake well.

Dose—A tablespoonful after each meal.

The local treatment should be commenced by the institution of the most perfect cleanliness. The patient should be instructed to wash his anus well with a cloth and cold water after each action of the bowels, and then to bathe his anus with the following wash :

℞. Hydrosulphite of soda,	3 ss.
Carbolic acid,	3 ij.
Aqua distil.,	3 iv.
Glycerine,	3 ij.

Mix. Sig.—Shake the wash well, and use freely after first thoroughly washing the anus with cold water.

In addition to this treatment the patient must every night or two, after undressing for bed and washing and drying his anus, lie upon his face, and with his hands behind him, separate his nates as widely as possible, and be instructed to strain as at stool, and while thus straining the anus will protrude, and while the anus is protruding in consequence of the strong effort, five or ten grains of pulv. iodoform must be sprinkled upon the anus from a knife or spatula by an assistant. The minute eruption which causes this most distressing itching will be found most abundant at the junction of the mucous membrane of the

rectum and the skin of the anus, and it is at this situation that the application does the most good. The patient should allow the iodoform to remain in the position of its application during the night, repeating during the day his ablutions of the anus after each action. The probability is that after two or three nightly applications of the iodoform all pruritus will disappear; but the patient should be directed to have the application of the iodoform continued three or four times a week until he is entirely relieved. I have never known a case to resist this treatment, and frequently washing the anus well, and nightly applying the iodoform, is the only treatment I prescribe."

RÖTHELN, OR "GERMAN MEASLES."*

In a lecture before the Association for Internal Medicine in Berlin, in June, 1885, Dr. A. Klaatseh, after a review of the literature of the subject, describes this disease as observed by himself in two epidemics, the first of which occurred in 1861, the second in 1884-'85. During the latter epidemic he had had opportunity to observe forty instances of the disease, occurring in seventeen families, the majority of which cases had already had measles.

The manifestations of rōtheln are those of a mild disease, and the eruption appears, as a rule, without any prodromata. As is the case with all the exanthemata, the eruption may be of various grades of intensity, and every stage from the ill-defined and incomplete, to the well-marked and characteristic form of eruption, may be witnessed. In typical cases the body is covered with highly-colored red spots, universally distributed. There are two different forms of eruptions. It may either be punctuate in appearance, and resemble a collection of numerous small dots made with a pen dipped in red ink, or it may consist of larger spots of one-half to one centimeter in diameter, which are of lighter color in the centre than in the periphery. These maculæ are not circular in shape, like those which form the eruption of measles, but are nearly always possessed of a border, which is irregular

*Zeitschrift für Klin. Medicin, 1885, Band X, Heft. 1 and 2. s. 1.

and composed of projecting angles and indentations, which may be discerned, even when the eruption is very thickly distributed, and in such cases, also, the individual lesions are separated by skin of normal appearance. The author is unable to state with certainty whether the larger form of eruption is developed from the smaller, although, in some instances, such seemed to be the case. As a rule, the eruption is manifest over the whole body, from head to foot, being most marked, however, upon the face, the shoulders, the extensor surfaces of the arms, the lower part of the back, and on the buttocks. The color of the eruption is generally less vivid upon the lower than upon the upper part of the body. Sometimes portions of the body, such as the face, remain entirely untouched by the eruption, and occasionally it is grouped in an irregular and limited manner. One of the most striking instances of curious distribution of the eruption was the case of a boy, in which only the lower part of the body below the waist was affected. In another case, the eruption formed a red band around each thigh. Oftentimes the skin between the individual lesions of the eruption is reddened by erythema, so that the whole skin is of a uniform redness, reminding one of scarlet fever. A coalition, however, of the individual lesion, such as takes place in measles, has not been observed by the writer. Occasionally these maculæ are so thickly distributed that the whole cutaneous surface appears of the same red color, and it is only by pressure with the finger and the production of temporary anæmia, that the individual lesions may be detected, as the redness of the skin reappears. Occasionally minute pustules are developed upon the hyperæmic base furnished by the eruption. A hæmorrhagic variety of eruption, such as occurs in measles, has never been seen by the writer, but the eruption, however, if of an intense character, may leave behind it a yellowish discoloration of the skin, which lasts for sometime. It is only in rare instances that the appearance of the eruption was accompanied by itching. The eruption follows the same course of development as that of measles, appearing first upon the head, and afterwards upon other parts of the body, but its spread takes place much more quickly than is the case in measles, often twelve hours, and rarely more than twenty-four hours, being sufficient time for its entire development. As a rule, lasting about three days, and in severe cases five days, its departure is as rapid as its appearance.

In about one-half the cases of the disease there was a rise of tem-

perature rarely reaching 39° C., which made its appearance with the eruption and continued for one day only, while the general subjective feelings of the patients were in no way disturbed. As constant and accompanying symptoms, were observed injection of the conjunctive, reddening of the pharynx and enlargement of the lymphatic glands. The expression of the eyes was peculiarly dim, but there was observed neither photophobia nor hypersecretion of tears. The redness of the pharynx was diffuse, not spotted, as in measles, and was confined in its distribution to the back wall of the pharynx, the pillars of the fauces, the tonsils and the lower part of the soft palate. In no case was there observed any severe "sore throat" as a result of this reddening of the mucous membrane of the same. Almost characteristic of the disease was the well-marked enlargement of the cervical lymphatic glands and the lymphatic glands over the mastoid processes, which could be detected in every case without exception. A similar enlargement of the lymphatic glands has never been observed by the writer in connection with measles. In most of the cases of rōtheln there was also moderate enlargement of the lymphatic glands in the axillæ and groins. This enlargement of the lymphatic glands, however, does not occur in all epidemics, since Thomas, who observed the disease very carefully, expressly states that he was unable to make out any enlargement of the lymphatic glands.

While the course of the disease occurring in children who have been previously in good health, is always a favorable one, a few cases of death were observed in children already sickly and debilitated from other causes. The writer considers the disease to be contagious but to a limited degree since he has repeatedly observed instances where the disease was confined to one child of a family. The most marked expression of its contagiousness was furnished in a girls' boarding school. One of the scholars having been attacked, all the other inmates were sent home, and of these eleven were attacked by the disease. The apparent incubation of the malady, as far as could be made out, varied from fourteen to twenty-two days. The disease was not confined to children, the writer having met with it eight times in persons of from eighteen to thirty-five years of age.—*Boston Medical and Surgical Journal.*


IODIDE OF SODIUM VS. IODIDE OF POTASSIUM.

The disadvantages attending the employment of the iodide of potassium have long been noticed and commented upon in England ; but, probably from the fact that the other iodides have never come into anything like general use here, these disadvantages have been supposed to result from the exhibition of an iodide as such, and therefore likely to follow the administration of iodides of other bases than potassium. The subject has, however, been taken up and studied of late in a more scientific manner, especially abroad, and we are thus enabled to judge on other than empirical grounds the relative advantages of the different iodides.

The object with which any drug is given is, or should be, the relief of certain definite symptoms ; but it need scarcely be remarked that no drug, so far as one is enabled to judge, ever corresponds so exactly to any particular morbid condition as to cover that particular pathological area and no more. The effect of the drug overlaps the diseased area, so to speak, and produces, or is apt to produce, a train of symptoms not only unnecessary and undesirable, but oftentimes positively injurious. Now, when iodide of potassium is given in any beyond quite small doses—and large doses have lately been recognized as indispensable to the relief of many cases where no improvement has been effected by the smaller doses—various troublesome consequences are to be noticed, first among which is an extreme depression. We may here recall the well-known fact that potassium, and all salts into the composition of which it enters, exert this depressing influence, lowering the blood-pressure and slowing the heart. So marked is this action on the heart, that large doses (one ounce and upwards) would probably cause dangerous, if not fatal, syncope, were it not for the fact that its emetic action is so far constant in these doses, as to obviate the risk of its being absorbed in quantities sufficient to show its power in this direction. The depression, nevertheless, is always present to some extent, and must often be undesirable. Sodium and its salts are comparatively exempt from this ill effect ; and, therefore, *ceteris paribus*, the use of the sodium iodide is indicated wherever we think proper to employ large doses of an iodide, or where the state of the patient is such as to render further depression inadvisable. In

support of the argument that the depression is the effect of the salt, as a potassium compound, and not as an iodide, the following experiments may be adduced. When muscular tissue is cut out of the living body and placed in a 2 or 3 per cent. solution of a potassium salt, the chloride, for example, the muscular fibres immediately lose their irritability. If this exposure to the potassium salt be not continued for too long a time, immersion in a solution of sodium chloride will restore to the muscle its irritability. Further, if healthy muscular tissue on removal from the living body be immersed in a solution of chloride of sodium, its irritability will be preserved for a much longer period than if it be immersed in pure water (Kühne). The salt-frog, common in the physiological laboratory, is a practical instance of the stimulating action of solutions of sodium chloride upon the living animal tissue.

Second in the list of inconveniences following the employment of iodide of potassium comes the collection of symptoms, catarrh of the conjunctival, naso-pharyngeal, and respiratory mucous membranes, and headache, known as iodism; and this is not uncommonly accompanied by catarrh of the gastro-intestinal mucous membrane, giving rise to epigastric pain and discomfort, dyspepsia and diarrhoea. An analytical study of the physiological effect of the drug will show that the catarrh of the gastro-intestinal mucous membrane is probably due to the potassium of the salt, which produces the effects alluded to above, on coming into contact with the muscular walls of the stomach during absorption. For this reason the drug will often be tolerated, if the precaution be taken to give it largely diluted with an alkaline mineral water. The coryzal symptoms are probably due to the iodine component of the salt; it is only of minor importance so far as the general health of the patient is concerned, and is variously accounted for by different authorities. The only theory as to its etiology which we shall mention is the one advocated in the latest edition of Nothnagel and Rossbach. According to these authorities, the catarrh of the nasal and respiratory mucous membranes occurs only when either free iodine is used externally together with the iodide of potassium internally, or when the potassium iodide which is used is impure from the presence of some free iodine; in either case, it is the direct irritation of the free iodine, either in the process of excretion or when inhaled as a vapor, which causes the catarrh. If this be



so, these effects will be avoided by care being taken to administer a pure potassium or sodium iodide. What has been said as to the cause of the catarrh will hold good for the eruption also ; the latter is the external manifestation of an irritation of the integument, just as the former is of irritation of the mucous membranes.

We are ignorant, it is true, of the exact mode of action of the iodides, and of the iodide of potassium in particular ; our employment of it is empirical, and we are reduced to the vague designation of "specific" to describe its therapeutical effect. If this be the case in speaking of its action in cases of tertiary syphilis, how much more applicable is it when employed in an "alterative" or "resorbent," where its *modus operandi* can scarcely be guessed at. Be this as it may, whatever effect can be attributed as a "specific" to iodide of potassium can probably with equal justice be credited to the other iodides, and particularly to iodide of sodium ; while, as we have endeavored to show, the inconvenience resulting from the employment of an iodide in large doses, is minimised by the substitution of sodium for potassium salts. The same remarks apply with few reservations to the analogous salts of bromine. Such authorities as Nothnagel and Rossbach assert that they have used the sodium iodide almost exclusively for some years past where the drug had to be given for a long time, with results equal to those obtained from the iodide of potassium ; and Dr. H. W. Berg, of New York, has used it with similar good results in cases of pregnant women under the influence of syphilis.

To sum up, then, we may claim for sodium iodide that (1) it can be used therapeutically for almost all, certainly the chief, purposes for which potassium iodide is used, and with similar beneficial results ; (2) that sodium iodide is more assimilable than the iodide of potassium, both locally to the digestive organs, and to the general system ; (3) that, as a result, many of the local and general undesirable effects which are produced by the potassium iodide do not follow the use of the sodium iodide. It is to be hoped, therefore, that the sodium iodide will be used by those whose clinical advantages allow an extensive trial of the drug, so that a more extended experience may confirm that which a limited experience seems to claim for this drug.—*British Medical Journal*.

REMARKABLE RESULTS OF THE NEW GERMAN CÆSAREAN OPERATIONS.

These distinct methods of performing or completing the Cæsarean section have been devised and tested in Germany during the last five years; two of them by their respective originators, and the third likewise, and also by several operators, who have been influenced by its designer to adopt his method. The cases in which this operation has been performed, amounting to seventeen in number, have had a far less fatality than has followed in the same country, either the old Cæsarean section or its modification by utero-ovarian amputation.

The processes which bear the names, respectively, of Frank, Kehrer and Säger, have been fully described in *The American Journal of the Medical Sciences* for July, 1884, page 232, to wit:

Frank's Method.—Wash the abdomen with ether and with a five per cent. solution of carbolic acid; disinfect the vagina by irrigating with the latter fluid. Turn out the uterus entire, and incise it vertically, commencing low down in the vesico-uterine excavation; extract the fœtus and secundines; wash the front of the uterus, its interior and the vagina with a five per cent. carbolic acid solution. Pass a large drainage-tube through the abdominal and uterine wounds and out through the vagina. Suture the uterus above the tube with strong catgut. Draw the round ligaments together above the uterine wound, and secure them with sutures of of Czerny silk, so as to close over and separate from the abdominal cavity the vesico-uterine pouch, which is to be drained by three tubes—"one utero-vaginal, one pre-uterine, and a third applied along the uterine wound to the top of the pavilion."

Process of Kehrer.—Open the abdomen through the linea alba. Incise the uterus transversely between the insertions of the round ligaments. Extract the fœtus and secundines; close the muscular layer of the uterus by from six to ten deep-seated stitches of carbolized silk, and the peritoneal portion by from twelve to twenty-five. Use Listerism in the operation and dressings, abdominal drainage and vaginal irrigation.

Process of Säger.—Abdominal incision to be made as usual;

two strong ligatures are to be inserted through the margins of the wound near its upper angle to be drawn upon after turning out the uterus. Membranes to be ruptured through the vagina. If practicable, the uterus is to be lifted out and held vertically. A sheet of caoutchouc, moistened with a five per cent. solution of carbolic acid, is to be made to inclose the cervix and cover the abdomen; to protect its cavity against the entrance of fluid. The ligatures are to be drawn upon to close the abdominal wound, while the uterus is incised *in situ*, manual compression is to be made as a hæmostatic upon its lower segment; if opened after being turned out, manual compression: the application of clamps to the broad ligaments, or of an elastic tube to the cervico-uterine cone. After evacuating the uterus, any hæmorrhage from the wound is to be checked by hæmostatic pincettes. When the uterus has well contracted, pass a utero-vaginal drainage-tube, and introduce a carbolized sponge into the uterine cavity. Dissect the peritoneum free from the muscular edges of the uterine wound, and pare from the latter on each side a long slice of tissue of a wedge-shape, the thick edge being next to the peritoneal side, and the thin edge to the uterine cavity. The free edges of the peritoneum are now to be turned in over the muscular layer, and deep-seated stitches of silver wire or silk inserted, so as to penetrate the peritoneum and pass nearly through the muscular coat. Then superficial stitches at short intervals are to be passed, so as to secure the turned in peritoneum and keep its serous surfaces in contact, making a secure welt.

Frank has operated twice, viz: on August 9, 1881, and December 8, 1884, losing the first patient, who died of shock in ten hours, and saving the second. Kehrer has had four cases, viz: on September 25, 1881; November 13, 1881; April 11, 1882, and June 20, 1885. The first and fourth recovered; the second died of septic peritonitis in fifty-three hours, and the third of septicæmia in five days. The Säger operation has been performed in Germany alone eleven times, five times by Leopold, of Dresden, the first on May 25, 1882, with the loss of one case, his fourth, operated upon November 28, 1884, which died in five days of septic peritonitis. Säger has operated four times in Leipzig, the first on November 16, 1884, and the other three last year. These patients all recovered. A tenth Säger operation was that of Beumer, which was unfortunately fatal in forty hours, the woman being found upon autopsy to have

had a pyelonephritis; this operation was in Griefswald. The eleventh case was under the care of Oberg, of Hamburg, and was operated upon on July 17, 1884; the patient recovered.

We have, then, seventeen of the new German Cæsarean operations to be placed to the credit of Germany, with the saving of thirteen women, or 76.6-17 per cent. By the Säger operation alone, we have the remarkable result of 81.9-11 per cent. of women saved, and 100 per cent. of the children, which is considerably more than double the saving effected by the Porro method in Germany. To find an equivalent of nine women saved by the Cæsarean section in the United States, we must go back over a period of eleven years, and examine the records of thirty-nine operations, by which thirty women and twenty children were lost. This frightful mortality, of 76.12-13 per cent. of women is far greater than was encountered thirty years ago in our country, and is largely due to the fact that the Cæsarean operation is believed to be almost inevitably mortal, and hence is not resorted to until the patient is in an almost hopeless state. We have made the operation by delay as fatal as our English text-books teach us it is in Great Britain; and have done this, too, notwithstanding the fact that early operations have saved 75 per cent. of our women.—*Medical News*.

DR. WOOLDRIDGE'S RECENT RESEARCHES ON COAGULATION OF THE BLOOD.

Both in its chemical and physiological aspects, coagulation of the blood has important physiological and pathological relations; and, although many facts are now known which throw much light upon the changes which take place, the phenomena have by no means been fully explained. The earlier researches of Buchanan and Schmidt tended to prove that fibrin was formed from two proteid bodies, paraglobulin and fibrinogen, by the action of a special fibrin-ferment, which was liberated by a disintegration of the white blood-corpuscles. Hammersten, however, has shown that paraglobulin plays no part in the formation of fibrin, fibrinogen being the only precursor of that body. So simple a statement of the chemical

changes in coagulation, does not, however, explain all the phenomena observed, as Dr. L. C. Wooldridge has shown in the extended experiments which are the subject of this article.

Living blood, as is well known, consists of plasma and corpuscles. Shed blood soon coagulates, forming a clot (fibrin and corpuscles) and serum (containing albumen and paraglobulin). The question of the composition of living plasma is that which is the most important in studying the changes in coagulation. The method used in the investigation has the object of preventing coagulation. Thus, if blood be drawn into an equal quantity of 10 per cent. sodium-chloride solution, it will not coagulate; nor will drawn blood coagulate, if, during life, a solution of peptones be injected into the vessels. In the latter case, if the blood be repeatedly centrifugalized, the corpuscles are completely separated, leaving a clear plasma, the reactions of which can be studied. If this peptone-plasma be cooled to 0° Cent., a body is separated which consists of what has hitherto been considered as the "Blutplättchen," or hæmatoblasts, a body which is a proteid, and which, although uncoagulable on the addition of fibrin ferment, will coagulate on adding the lymph-corpuscles. Wooldridge, therefore, considers the hæmatoblasts, not as organized bodies, but as proteid precursors of fibrin.

After the separation of this body, peptone-plasma gives only a small clot on the addition of fibrin-ferment, though it may be made to become quite solid if it be diluted four times with water, and a stream of carbonic acid be passed through the liquid. The plasma, therefore, contains a small amount of ordinary fibrinogen, coagulate by ferment, and a large amount of another precursor of fibrin. This statement is confirmed by the investigation of blood which has been prevented from coagulating by sodium chloride, and from which the corpuscles have been removed. The resulting plasma gives only a slight clot with fibrin-ferment, and the supernatant liquid is found to give no precipitate with heat up to 90° Cent.; whereas, if fibrinogen were present, it ought to be precipitated at 56° Cent.; yet this plasma gives a dense clot on diluting four times, and adding fibrin-ferment. These results are more remarkable when we consider that albumen is present, and ought to come down at 70° Cent.

The most important part of Dr. Wooldridge's researches, and

that on which he laid special stress in the Croonian Lecture before the Royal Society, and in the lecture delivered before the Vice-Chancellor of the University of London, and the Master of the Grocers' Company, deals with the agents which hasten coagulation, and they are important from their pathological, and even, perhaps, therapeutical significance.

By uncontrovertible experiments, it has been shown that lecithin, which is a phosphorized fat, has a marked effect in bringing about coagulation. Thus, if dogs blood be drawn into dilute sodium chloride solution, at a temperature of about freezing point, it is found that it will coagulate if lecithin be present in an emulsified state, whereas coagulation is delayed for many hours, if the low temperature be maintained, and lecithin be absent. This is not all, however; an "active lecithin" may be obtained from lymph-glands, blood, testis, brain and yeast; and, if the fluid of lymph glands, from which all corpuscular elements are removed by centrifugalizing, be injected into the vessels, there ensues more or less rapid intravascular clotting—an action which is dependent on the lecithin associated with the fibrinogen. This important result, may, in the future, aid in the elucidation of the pathological changes in thrombosis; but it has another bearing, of a much more practical nature. Wooldridge has shown that this body (lecithin-fibrinogen) is developed to the greatest extent when the animal has a diet containing an excess of fat; so that it may, in the future, be proved that a fatty diet would tend more materially to the consolidation of an aneurysm than a starvation one, the essence of Tufnell's treatment. Moreover, so active an extract may be obtained, that it may be used by injection to cause clotting in the sac of an aneurysm. However this may be, Wooldridge's results throw a new light upon the phenomena of coagulation. The chief points which have been shown are, that the "Blutplättchen" are not organized bodies, but a coagulable proteid; that lecithin has an important function in initiating coagulation, the white corpuscles and fibrin-ferment playing only a secondary part, so that the phenomena would be more akin to "crystallization" than to fermentation; and that lymph-glands contain a body which causes intravascular clotting.—*British Medical News.*

NEFF (JOSEPH S.) ON PYRIDINE IN THE TREATMENT OF ASTHMA.

Pyridine has been known in chemistry for sometime, Etarde and Cahours having discovered a pyridic nucleus in nicotine in 1880. Its use in medicine, however, is novel, as the first mention of it was made in a paper read by German Sée before the Academy of Sciences last June. He had remarked so frequently the benefit derived from empiric and secret formulæ, to which he was so often forced to resort, that he endeavored to ascertain the true physiological agent to which these results could be traced. Together with Bochefontaine, he instituted a chemical analysis, showing that their action was due to a uniform base developed by the combustion of certain plants and alkaloids, as, for example, chinonine, pilocarpine, atropine, nicotine and morphine. It has also been found by Wohl and Eulenberg (*Bulletin gén. de thérapeutique médicale, chirurgicale, et obstétricale*, June 30, 1885), in the condensed products of tobacco-smoke, and during the destructive distillation of dry organic matter in the products of bony tissue and coal-tar.

The name pyridine is derived from the Greek word meaning fire, indicative of its source of preparation; when pure, it is a clear, colorless liquid, with a specific gravity of 96, boiling at 274° F., inflammable, having a strong, penetrating odor, evaporating in the air at ordinary temperatures, and miscible with water in all proportions. Its chemical formula is C_5H_5N , being that of a base belonging to a series of bases of which picoline (C_6H_7N) and lutidine (C_7H_9N) are the most important, being analogous to the aniline bases, and it forms salts with the mineral acids, which are very soluble but easily disintegrated; the latter constitutes one of its difficulties in administration. Sée's* experiments show that the sensibility of the pneumogastric nerve and the excitability of the medulla oblongata are decidedly diminished in the dog. "The blood pressure, which is 14° ctm. of mercury in the normal state, rises to 32° ctm. upon central excitation of the pneumogastric, severed in the neck. After the injection of one gramme of pyridic nitrate, practised twenty times, the arterial tension gradually fell,

* "Bulletin generale de therapeutique," June, 1885.

and, if centripetal excitation was repeated, the pressure remained unchanged—that is, the gray substance of the spinal cord had lost its reflex power.”

Physiological experience at first would indicate a similarity to the action of nicotine—contraction of the pupils, dyspnœa, convulsions and death; this I have not found as yet to be the case. Owing to my inability to procure a proper combination for internal use, I have been compelled, in administering it to the lower animals, to use it in the form of vapor, and the observations are not sufficient to warrant positive conclusions; but I would express the opinion that in the healthy animal the respirations are at first quickened, then slowed, the pupils are but little affected, there are no convulsions or dyspnœa at any time, but drowsiness and stupor. The respirations become slower and slower until they cease. After death the heart continues to beat for a considerable period, the cavities containing black fluid blood.

The method of administration is by inhalation, as it cannot be given by the mouth or subcutaneously, owing to its excessive irritative action in the first place, and to the instability of its salts in the second. The direct application of the drug to the nose or mouth provokes nervous troubles, as well as irritates the mucous membrane.

I have suggested the use of capsules, but its volatility prevents the closure of those made of glass, and its permanence in those made of gelatin. I think that proper combinations may be made to be inhaled directly from a bottle or towel. I have used from two to four grammes at a sitting, poured upon a saucer, placed in one end of a small room with doors and windows closed, or, what is better still, a large closet, and allowed the patient, sitting a little distance from it, to inhale the pyridic vapors mixed with the air. The absorption is immediate, the drug being detected in the urine in a few moments.

Upon the healthy adult, as shown in myself, assistants, and nurses, there has been almost universally a flushing of the face, with quickening of the pulse and respiration, the latter lasting but a few moments, the former from fifteen minutes to ten hours, depending largely upon the length of time of inhalation. In several instances temporal headache of a slight character has persisted for several hours; at times a peculiar full sensation approaching giddiness is experienced.

The fact that in the healthy the pulse and respiration are quickened for a few minutes does not hold good in asthmatic patients, for, almost without exception, the heart's action, which previously may have been accelerated, slowly falls to the normal, without change in character or rhythm; and less rapidly the respirations, which become slower, easier and more dull, the intense longing for air disappearing, with diminution of the oppression.

In most cases there is a desire to sleep, which in some becomes irresistible; this resembles, however, normal sleep, from which they are easily aroused, and without insensibility or loss of intelligence, thus distinguishing it from the sleep produced by narcotics and anæsthetics, although there is a slight loss of muscular reflex action.

I have used this preparation many times in a series of twelve cases of asthma.

The results were as follows:

Nervous pulmonary asthma, three cases. No return of attacks in any.

Cardiac asthma, three cases. All were relieved of attacks. One remained under observation three months, and one for two weeks only.

Bronchial asthma, three cases. In one there was no return during ten weeks' stay in the hospital. The two others were relieved of their attacks and insisted upon their discharge, being under treatment less than three weeks.

Asthma in advanced phthisis, two cases. In one there was but slight relief during the paroxysm; in the other there was absolutely no benefit.

Asthma as a complication of gout, one case. No return in a month. Albuminuria from interstitial nephritis was present.

Of the fourteen cases reported by Sée, four were in females, ten in males, from thirty to sixty-eight years of age. Nine were what he terms "pure asthma," all of which were more or less relieved, and five cases of cardiac asthma.

In one case of twelve years' duration pyridine caused nausea and vertigo after eight days of treatment, which necessitated its discontinuance, although great relief was obtained. Nausea I have not seen; vertigo but once.

In one or two cases where the expectoration had been purulent, it lost that character after the inhalation.

All unpleasant symptoms seem to be confined to cases with long-standing emphysema, or valvular or degenerative heart disease, with small, irregular pulse. In young, robust people, with "simple" pulmonary asthma, there seems to be drowsiness alone.

Since these observations* were made I have noted in a more recent report by Lublinski,† one case of marked tremor of the limbs with nausea, and another with vomiting, dizziness and severe headache. In all of these, however, the length of time of each inhalation was prolonged from one to one and a half hour.

The beneficial results obtained from this remedy seemed to be from its action on the sympathetic and the medulla.

Any depressing effects on the heart would seem due rather to the interference with the pulmonary functions, death being caused, in the lower animals at least, by paralysis of the respiratory centres.

Pyridine is not to be classed as a curative agent. Most likely its greatest value will be seen in cases of simple or nervous pulmonary asthma, when the iodine preparations cannot be borne, or nitroglycerin and sodium nitrite are contra-indicated. Although in the bronchial or catarrhal forms of the disease the relief of the paroxysms has been marked in ninety per cent. of the cases treated, of the remaining number nearly all had emphysema of long-standing.

In asthma occurring in advanced phthisis the drug should be given with care on account of the small amount of lung tissue left unaffected, especially where there is a great degree of consolidation with fibroid induration, when, perchance, the spasm may be relieved, but few air-vessels remain in condition to respond. Here, at least, morphine will hardly be superseded.

I have used pyridine in several forms of dyspnoea occurring in different diseases without much benefit.

In phthisis the recurring dyspnoea and orthopnoea are relieved during the period of inhalation only, returning in a few moments, and at times with increased violence.

With so little experience, this drug must be administered with a

*Report of a clinical lecture delivered November 11th at the Philadelphia Hospital. "Medical and Surgical Reporter," December 5, 1885.

†"Deutsche Medicinal-Zeitung," Berlin, November 5, 1885.

certain degree of caution until its action is thoroughly understood, severe or persistent headache, nausea, vomiting and vertigo acting as danger-signals, warning us to proceed with care.—*New York Medical Journal—Medical Analectic.*

SCARLET FEVER FROM THE COW.

A report has been recently presented to the Marylebone Vestry by Mr. A. Wynter Blyth, which suggests some important questions upon the origin of scarlet fever; and the facts, when fully elucidated, will be of interest, not only to dairymen and drinkers of milk, but also to pathologists and physicians. The report is as follows:

“The following is a brief epitome of an epidemic of scarlet fever and sore-throat, apparently produced by infected milk: On December 14th I received a communication from Dr. Hickman, to the effect that there were several cases of scarlet fever in Dorset Square. I at once personally made investigations, and found that the only connecting link between the various households was a common milk-supply. Previously to this sudden outbreak there had been remarkably little scarlet fever in the parish. I had, however, on December 9th, caused to be removed to hospital a lad suffering from scarlet fever, one of the milk-carriers at the dairy whence the sick families obtained their milk. The first impression was that this lad had in some way contaminated the milk; but this supposition was speedily excluded, for a number of the cases had occurred several days before the lad was taken ill, and the whole evidence clearly showed that the lad was infected by the milk, and not the milk by the lad. The dairy, which may be conveniently called ‘Dairy A,’ derived its supply from two sources, namely, sixty-three barn-gallons from a large farm in the parish of Hendon, and a few gallons from Swindon. I telegraphed to the Medical Officer at Swindon for information, and as quickly as possible visited the farm at Hendon. I will at once put the Swindon supply on one side, for it was ascertained that some of the sufferers never had the Swindon milk at all, and the whole evidence subsequently obtained was a negative character, so far as regards this small part of the milk supplied by ‘Dairy A.’ The Hendon farm is one of the model type, with

excellent drainage and water-supply. The milk-produce of the farm was distributed to three retailers, A, B and C. 'Dairy A' took 63 barn-gallons daily, B (St. John's Wood), 20 barn-gallons, and C (Hampstead), 67 barn-gallons daily. All three had the milk from different sheds. At the date of my visit (December 15th) I ascertained, from a personal examination of the milkmen, that there was not, nor had there been, any scarlet fever, sore-throat, or other infectious malady on the farm. In this inquiry, Dr. Cameron, the medical officer of health, gave active and valuable assistance, and visited each of the laborer's families, so as to be certain that true statements had been given. Nevertheless, I was far from satisfied, and still less satisfied when, by a mere chance, I heard a rumor of a family, deriving milk direct from the farm, suffering from scarlet fever. I obtained, with a little trouble, the particulars, which were briefly as follows: Five cases of scarlet fever had occurred almost simultaneously, on or about December 3d, in a household at Hampstead, no scarlet fever being at that time in the immediate neighborhood. The cause of the attack was to the sufferers a mystery. They had their milk-supply direct from the Hendon farm. Dr. Power afterward elicited the important fact that this milk was derived from the same shed which supplied 'Dairy A.' The evidence on December 17th relative to the infection, in some way or other, of the Hendon milk, was strengthened by other facts, and I felt it my duty to make a strong representation to the proprietor of 'Dairy A,' requesting him, in the public interest and his own, to at once cease retailing the Hendon milk. He did so, and a very instructive event followed. The very milk that would have been delivered in Marylebone was in part thrown away, and in part given to poor people in the neighborhood of the Hendon farm. Within a few days, eight of the families partaking of this milk were struck down with scarlet fever. On the same day on which the milk was stopped I had all the cans disinfected. They were taken to the stone-yard in carts, placed in hot-air chamber, submitted for many hours to a temperature of 250°, and finally washed with hot water and soda, under the careful superintendence of Mr. Phillips. Too much stress can scarcely be laid on the fact, after stopping the supply from Hendon and disinfecting the cans, there was no fresh infection of the customers of this dairy. With regard to 'Dairy B,' deriving milk from the same farm, but from a different shed, I could discover no illness among the customers until

December 27th, when in one household a suspicious case occurred, and I then stopped the Hendon supply in this direction also, and had the cans disinfected. Considering that the sudden withdrawal of two outlets for the milk produced at this farm would be likely so far to disturb the existing arrangements that the sound and unsound milk would be mixed together, and, moreover, that it was certainly being distributed in other parishes, I felt it my duty to communicate with the medical officers of health of Hampstead, St. Pancras and Paddington, and also with the Medical Department of the Local Government Board. Dr. Buchanan, seeing the importance of the epidemic, the more especially as the facts already detailed seemed likely to throw light on the genesis of scarlet fever, at once deputed Dr. Power to investigate the matter. Dr. Power entered on the task with great energy, and specially directed his attention to the state of the cows in the different sheds. The result to this examination will be published in due course. I will only say now that certain of cows are 'suspect;' and that one, the appearance of which was least satisfactory, has been bought, and conveyed to the Brown Institution, and Dr. Klent is making experiments with the milk and other secretions. There have been in the parish, between the dates of December 1st and December 29th, sixty cases of illness having this one thing in common, that the patients had drank milk from one or other of three dairies getting their supply from Hendon. During the whole month there have only been three cases of scarlet fever in which the connection with one or other of the dairies is not fairly clear. Some of the sufferers have had simple sore-throat, others a slight attack of scarlet fever; a few have had a severe attack; in one case (Dairy C) death resulted. Some interesting facts have been ascertained as to the period of incubation, which seems in a few cases to have been very short. For example, a child living in the parish of Paddington came to see an uncle near Dorset Square, had some of the milk from 'Dairy A,' and in two days the symptoms appeared. In another case a young gentleman came from a military college where there was no scarlet fever, drank some of the milk unboiled, and on the third day sickened with a mild attack of scarlet fever. Those who drank no milk save that which had been boiled were not attacked, and most of those who merely took a little milk in tea or coffee escaped. Children taking considerable quantities of lukewarm or unboiled milk, and adults drinking raw milk, form the bulk of cases. Several instances of

infection from the cream occurred, and I have reason to believe that the disease-influence was in a more concentrated form in the cream than in the milk. This report is necessarily incomplete; for the full history will not be known until Dr. Power publishes his report, and gives the details relative to the cases in the parishes of Hendon and Hampstead, infected either directly from the farm or indirectly through 'Dairy C;' together with the result of the examination of the cows and Dr. Klein's experiment. I believe that we are on the eve of some very important discovery as to the origin of scarlet fever.—*British Medical Journal—The Archives of Gynæcology Obstetrics and Pædiatrics.*

THE BLOOD PLAQUE.

The chief interest of Professor Osler's Cartwright Lectures lies in the full consideration of the much debated third corpuscle for which the term plaque is suggested. This element has had a hard struggle for recognition at the hands of histologists, and even yet there are capable observers who are not convinced of its existence. The difficulty lies in the remarkable rapidity with which the corpuscles undergo alteration when the blood is withdrawn, fusing into irregular masses in which the individual elements lose their distinctness. In order to see them clearly, they must be studied within the vessels, or in the blood-drop expressed directly into osmic acid or some fluid which will prevent their adhesion to each other. Under these circumstances it is easy to determine the presence of the plaques, and the conditions are such as to render it almost impossible that they should arise from the disintegration of the other corpuscles. The balance of testimony is strongly in favor of the views of Osler, Hayem, Bizzozero, that they are pre-existent, independent blood elements.

Their origin does not appear to have been determined, but their relation to the development of the red corpuscle, of which the microcyte was an intermediate stage. The discoid shape, the gradations in size, the abundance in the blood in the young, and in

the adult in conditions when blood-making is active, favor this view ; but other observers have not been able to detect the gradual tinting of the plaques, and the intermediate forms which Hayem describes, and their relation to the regeneration of the corpuscles remains doubtful.

An important part of the work of the past few years on these bodies relates to their connection with coagulation and thrombosis, and the facts which are given in the third lecture, if corroborated, will necessitate a modification of the current views of the physiology of these processes. From the first, Hayem insisted that the hematoblast played an important rôle in coagulation, but his observations did not arouse the attention which they deserved. Since the issue, however, of Bizzozero's paper, in 1882, the subject has been very carefully studied, and the evidence has gradually accumulated in favor of the view that these bodies share, at any rate, with the colorless corpuscles in the formation of fibrin. That the leucocytes undergo disintegration as coagulation proceeds, would appear to be established by the experiments of Schmidt's pupils and of Wool-dridge, and yet we are told in the study of the histo-genesis of fibrin with the microscope, under conditions the most favorable for the detection of any changes in the colorless corpuscles, it does not seem possible to demonstrate their participation in the process. There is a glaring contradiction here which subsequent observations must explain. The evidence brought forward by those who maintain that the plaques are important agents in coagulation, may be thus summarized: They are the elements which immediately adhere to any foreign body within the vessel, or to its cut edges, if wounded ; second, in circulating blood the plaques may be shown to be the bodies which aggregate upon any laceration and form the basis of the thrombi so produced ; and third, they compose the structures known as white thrombi.—*Medical News—The American Practitioner and News.*


A NEW TEST OF MEDICAL COLLEGE STANDING.—The Illinois State Board of Health has resolved to recognize no medical college as of good standing the aggregate of whose graduates amount to 45 per cent. of its aggregate matriculates during a period of five years ending with any session subsequent to the session of 1885 and 1886.—*American Practitioner and News.*

EDITORIAL.

THE NORTH CAROLINA MEDICAL JOURNAL.

A MONTHLY JOURNAL OF MEDICINE AND SURGERY, PUBLISHED IN
WILMINGTON, N. C.

THOMAS F. WOOD, M. D., Wilmington, N. C., Editor.

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THE PUBLIC AND BOARDS OF HEALTH.

A recognition of the fact that the local boards of health in the State are simply possessed of advisory powers, if such a term can be applied to their limited functions, would enable the public to understand that if these organizations are to be held responsible for imparting the proper direction to measures to establish and maintain the public health, they should be invested with a control in part, at least, and have powers more or less mandatory when violation, in fact or in anticipation, of sanitary laws are brought to their notice.

In times of distress, an epidemic threatening or actually in existence, officials of both town and county governments, repre

senting the people at large and entitled to speak for them, eagerly seek for sustenance and advice from the health boards. But it is a thankless task to offer to these same representatives and presumably to the people through them, advice which, if followed, would institute general sanitary improvement, when they cannot, or will not, see any of the danger save such as they deem the frightening dreams of alarmists. This incredulity is increased when, to follow the advice that is offered them, an expenditure of money must ensue the return for which they can only vaguely see in the future—because it is to be an improvement that is to fill the wants of the future, distant as well as immediate.

There are no emoluments to members of health boards in this State, arising out of the connection with these organizations, except for County Superintendents of Health, and no one will dispute their claim to all they receive; and whatever opinions they may give on questions of sanitary regulations are the result of honest and attentive study of the whole subject in general and in detail, and a sincere desire to wisely advise those whom the law refers to them for guidance.

As arbitrators, so to speak, between the petitioners from the laymen seeking to set in operation what they deem progressive improvements and the officials who must authorize the work the people have planned, or as advisers of both officials and laymen in matters relating to the public health, but scant justice has been done these honest sanitarians, who are looked upon at one time as barring improvement, or at another as inciting the governing bodies to the expenditure of money rashly adjudged unwise and extravagant. No one will gainsay the assertion that all the acts of the general and local boards of health in the State have been the outcome of honest conviction, and no miscarriage in events which have ensued after the adoption of the course set forth by them as wise will set aside the claim that they should receive that esteem and confidence which is the reward of honest and faithful service. When the thinking men in and out of official life carefully study the works of the health organizations now in force under the laws of the State, they will come to the conclusion that the statute providing for this establishment was a wise one, and will urge upon legislators to enlarge the powers of the same boards that they now condemn by faint praise or misapprehension or set aside with

neglect. Until this harmony, to grow out of enlarged views of the situation, shall exist between the public and the sanitarians, who are a part of themselves, the usefulness of these much needed organizations will be curtailed, and we might say cease, for they soon will, under the present course of affairs, cease to exist.

AMERICAN MEDICAL ASSOCIATION AND THE INTERNATIONAL CONGRESS.

The reports received through the *Boston Medical and Surgical Journal*, the *New York Medical Record* and the *Philadelphia News*, of the proceedings of the American Medical Association, all give evidence of a thorough preparatory drill for the consummation of the tactics set on foot in New Orleans in 1885. Dr. N. S. Davis, of Chicago, was made President of the International Congress, and Dr. John B. Hamilton, Surgeon General of the Marine Hospital Service, Secretary General. The ability of these two gentlemen to perform the duties they have been selected to perform cannot be denied. We believe that money will be appropriated sufficient in amount to pay the expenses of the meeting, and that there will be an International Congress, but what is going to heal the dissension among the profession? What word was employed to win back the eminent leaders of the profession so grossly offended by the dominant faction in the American Medical Association at the New Orleans and St. Louis meetings? Of course the gentlemen in question can easily maintain their professional status without the aid of the Congress, but with a divided profession as a result, a hundred or more eminent men estranged from a great work which to succeed needs the undivided talent of the country. If it were only a question of this Congress, and not a question as to the future harmony of the American Association and the American Profession, the ambition of the few might for this one time be gratified, and trust to the future for reconciliation. Hereafter we may look for meetings of the American Association, and as long as certain leaders live the same party spirit will prevail, and the same well-drilled managers will go through the perfunctory committee-

makings, and with the same satisfaction to themselves. If the managers do not believe that the estranged members will seek permanently more harmonious and congenial associates, they have more faith in the patience of these outraged members than we have.

We are not of those who believe that the literary and scientific work of the proposed Congress will be a failure because so many great intellects will be missed from the list of contributors. One's faith in this will be quickly dispelled by studiously examining the great work now being issued from the press of an eminent publishing house.* It will be very apparent to those acquainted with our literature that topics have been treated in a masterly manner by many writers, who, to say the least, have not heretofore been eminent as teachers, and yet the *tout ensemble* of that work is that of the most creditable cyclopædia of medical science yet produced in the English language. This thought may stimulate the new management, that there are men abundantly able to produce scientific material worthy of the occasion of a great assemblage of scientific doctors from all countries, quite independent, with few exceptions, of the specialists who have so far been the leaders and teachers. As we scan that executive committee, headed by Davis and Hamilton, we recognize the names of men adroit enough for the emergency, and surely able enough to do all that can be done with a divided profession.

But after all is over, and the handsome volume of proceedings adorn our library shelves, the truth will still remain that they were purchased at a price far too dear, even though they prove to be the very gems of the most advanced and accurate state of the medical sciences in all the world.

PEROXIDE OF HYDROGEN IN DIPHTHERIA.—Vogelsang has had remarkably successful results with the above remedy. For internal use he orders 120 grams (about four ounces) of the peroxide with 3 grams (about $\frac{1}{4}$ drachm) of glycerine. Of this mixture one teaspoonful was given at intervals of one-half to two hours.—*The Archives of Gynecology, Obstetrics and Pædiatrics*.

*Reference Hand-Book of Medicine. William Wood & Co.

REVIEWS AND BOOK NOTICES.

THE PRINCIPLES AND PRACTICE OF SURGERY. By FRANK HASTINGS HAMILTON, A.M., M.D., LL.D. Third Edition. Pp. 988. New York: William Wood & Co.

The author says in the preface to this edition that he has rigidly adhered to "the original intention and scope of the work," in nowise attempting to make it an encyclopædia of surgery. He avoids any but the briefest allusions to opinions which are still of questionable worth, and has admitted into his book only such material as will be of immediate value to the surgeon.

In many respects the volume, built on the foundation of his own experience as a teacher and surgeon, is a personal one, but this feature is not objectionable, nor has it anywhere excluded the work or opinions of the best authors.

We think the marked merit in the book is the desire to reduce the details of surgical treatment to the greatest simplicity, without omitting any such as are necessary to clearness. This is the characteristic of the article on dislocations and fractures; in which, after a rapid discussion of the methods of treatment, only such means are recommended as will in the simplest form accomplish the desired result.

We turned with much interest to his remarks upon the mooted question of antiseptics. We find that our author has ranged himself with Tait, Keith and Callender in the opinion, that the true secret of Listerism is not in the burdensome details that "free antiseptic precautions" imply, but in rigid cleanliness in the person of the operator, his assistants, his instruments and his dressings, in the complete arrest of hæmorrhage and the removal of clots before closing wounds, and in such closure being secured to wounds as will ensure rest and freedom from pain. The details to be followed to secure these are infinitely less in number than the manifold precautions that the ritual of Listerism compels its followers to adopt. The question is still open, and certainly the surgeons who are following Tait and Keith fare no worse than the disciples of Lister.

The new edition of our author's book commends itself to the student and the busy practitioner. The publisher's part of the work is executed in the good style that is the custom of the house.

STUDENT'S MANUAL OF THE DISORDERS OF MENSTRUATION. By JOHN N. UPSHUR, M.D. New York. G. R. Putnam's Sons, 1886. Pp. 195.

The work is modestly called a manual, but it is full enough of practical ideas, we think, to adjudge it a safe place among the works of its class. We notice that he omitted any mention of permanganate of potassium in his list of remedies for amenorrhœa. With such authority as Thomas and Bartholow to give it prominence, we were surprised at the omission. Dr. Upshur gives no credence to the claims of rapid dilatation for cure of uterine flexions, and but little confidence is expressed in the use of tents or steel sounds. He arrays himself squarely against stem pessaries, and believes that incisions within uterine neck will best cure these distressing conditions.

The author is very decided in his opinions and bases them, he claims, upon cures of typical cases. As a careful observer his opinion is worthy of thoughtful reading, and the book does him credit.

ANTIDOTE TO COCAINE POISONING.—Dr. F. Schilling describes a case of cocaine poisoning, coming on after the drug has been locally applied for the extraction of a tooth. The patient was a woman aged 28, in the seventh month of pregnancy. The injection of two drops of a 20 per cent solution of cocaine caused sufficient anæsthesia for the extraction of the tooth. As the patient was leaving the room the dentist noticed that her eyes were fixed, and a few minutes after making her sit down she became unconscious, reacting to no stimulus. The injection of ether had no result. During the unconscious state, which lasted over half an hour, the breathing was quiet, the pulse 86 and regular; the eyes were wide open with medium-sized pupils, and the conjunctival reflex had disappeared. The patient could not be roused by shouting, but after a time began to call her husband by name. Dr. Schilling, considering that the condition was due to anæmia of the brain, advised the inhalation of amyl nitrite. The first inhalation seemed to rouse her, and after the second she could answer questions hesitatingly, but correctly. She was well in a short time. As the author states, it is a question whether the symptoms were not due to shock, as the patient was pregnant. He, however, considers this an improbable explanation.—*London Medical Record*.

CURRENT LITERATURE.

TREATMENT OF HÆMOPTYSIS.

Mr. H. T. Bachelor, of Queenstown, Cape Colony, says: "In considering the treatment of hæmoptysis, one naturally looks for the cause; but I think in the cause ought to be included the liability to bleed in the individual, that is, the constitutional liability, as well as the reason why he bleeds from the lungs. Bleeding is by no means an unfamiliar accident to which mankind is liable; but if we could select our bleeding ground, it would not be the lungs. But bleeding in itself ought to be regarded chiefly as an expression of a diathesis, whether it comes from the nose, lungs, stomach, rectum, kidneys or uterus; an expression of a diathesis aggravated probably by some error in diet or other temporary cause. I am not now referring to bleeding from ulcerated lungs or stomachs, etc., where a vessel is opened, and the treatment would best be met by a ligature if we could only apply it, but to the hæmorrhage which occurs suddenly in a person in good health, and from an apparently healthy mucous membrane. The diathesis which underlies the tendency to bleed has, by Mr. Jonathan Hutchinson, been shown to be the gouty. Fothergill's definition of gout is: 'Gout is hepatic reversion—the formation of primitive urine products by a mammalian liver.' If these two statements be accepted as correct, it follows that bleeding is due to functional derangement of the liver, or, to put it differently, dissolution from its normal and healthy development or imperfect evolution.

"Now, I firmly believe that the tendency to bleed occurs with the gouty diathesis; and that the excess of uric acid in the blood, and the locality of the bleeding, is due to individual peculiarities. Most people, in youth inheriting this diathesis bleed from the nose; later in life, from the rectum or uterus; some of them from the lungs. Now, those who do so from the lungs need not necessarily descend from phthisical ancestors; a badly formed thorax, interfering with due expansion of the lungs, may be a sufficient cause. But, apart from such considerations, and to come to treatment, I

think such people are best cared for by being dieted. Alcohol and meat are pernicious. But, supposing such a person has an hæmoptysis, saline purgatives, diuretics and diaphoretics will best meet the case. But as these people are always very nervous, it is necessary to administer a nervine tonic. Opium may also be given; cannabis Indica is almost better. I quite agree with Dr. Samuel West in his remarks on profuse hæmoptysis published in the *British Medical Journal* of January 16, 1886.

"It is to my mind often amusing to read the experience of some as to the value of a particular remedy in the treatment of bleeding. It seems to be forgotten that bleeding naturally ceases when the vascular system is adequately reduced. This is nature's method of saving the patient, and we cannot do better than imitate her. Bleeding, therefore, or dry cupping, or depressants, ought to be effectual aids as applied by us. Certainly, astringents imbibed cannot hold out much prospect of doing good. And as iron and opium also do not agree with these gouty people if continuously used, much care ought to be exercised in prescribing them.

Iron and digitalis I believe to be a particularly obnoxious combination. A man has an hæmoptysis, we will say, and he is given such a mixture. It is supposed that it stops the bleeding, whereas I believe the bleeding has stopped naturally. He continues with the mixture to prevent a recurrence, with frequently unhappy results. The iron impedes still more the already imperfectly acting liver, and the digitalis increases the tension in the already wounded vessel. It follows, then, that a recurrence may be naturally expected. Then, as to the bleeding from the lungs, the danger does not lie in the amount lost, but in the irritative changes it induces in the lung substance. Now, it is believed that the cough must be allayed (and to do this, opium is usually given), in order to prevent more bleeding. If it be accepted as true that the bleeding naturally tends to cease, I think we ought not to do anything to interfere with the expectoration of the effused blood. I am certainly of the opinion that, if it be necessary to give opium continuously, in order to stop more bleeding, although the patient may not die of hæmoptysis, he assuredly will eventually of lung inflammation. To give opium is assuredly a barbarous way of treating lung affections. In order to explain an apparent discrepancy with a former statement, when I said that opium might be given to allay the vascular and

nervous tumult, I wish to say that a single dose may be given for this object, but the continuous administration is hurtful. As I said before, I believe cannabis Indica the better of the two for this purpose."—*British Medical Journal*.

SUGAR IN THE URINE.

A Philadelphia correspondent of the *Atlanta Medical and Surgical Journal* states that it might be of interest to mention a convenient substitute for Fehling's solution in testing for sugar in the urine. The ordinary solutions deteriorate on keeping, and are liable to throw down the sub-oxide of copper themselves, if they have not been freshly prepared. Professor Holland, in his lectures on chemistry, at Jefferson Medical College, gave the following test fluid, which is very efficient, is easily prepared, and is not spoiled by keeping: Cupri sulphate, 3 j. ; glycerine, f ʒ j. Add five drops of this solution to one drachm of liq. potassæ, in a test-tube. Boil a few moments, to test the purity of the fluid ; should it remain clear, add a few drops of urine. If glucose is present in quantity, a red precipitate is thrown down, as in Fehling's test. To detect minute amounts of sugar, add half a drachm of urine, boil, and set aside. If sugar is present, even in very minute quantity, the liquid, as it cools, will turn an olive green color, and become turbid.—*Technics*.

NEW METHOD OF PASSING STRICTURE OF URETHRA.

Dr. Willis P. King, of Sedalia, Mo., in the *St. Louis Courier of Medicine* for March, 1866, describes an extemporaneous method of enabling the physician to pass an urethral sound or catheter in cases of urethral obstruction or stricture, which our readers may find well worth remembering. So far as Dr. King knows, the method is entirely original with him, and he has successfully adopted it in the only two cases in which he has had occasion to try it. The method, briefly stated, consists in passing a small flexible catheter into the urethra down to the seat of stricture, or obstruction, until it will go

no further. Then affix the nozzle of a suitable syringe, filled with water, to that end of the catheter which is outside the penis; and after sufficiently compressing the head of the penis with the thumb and finger, to prevent regurgitation of the fluid, inject the water into the urethra. This injection will sufficiently dilate the stricture to allow the catheter, with slight pressure, to pass through it into the bladder. In the want of a syringe, the mouth may be filled with water, and similarly squirted through the catheter with the same effect. After the catheter has thus made its way into the bladder, it may be withdrawn, and a proper-sized catheter, sound or divulser, immediately introduced. He reports two cases, one of his own boy baby, ten months old, whose urethra was obstructed by the pressure of a perineal abscess, which abscess resulted from a retrocession of measles. The child had not urinated for thirty-six hours, although catheterization had been skillfully attempted by a medical friend. Dr. King passed a rubber catheter down to the obstruction into the membranous portion of the urethra, where it stopped. He took a mouthful of water, and putting his mouth over the end of the catheter, and using it for a syringe, gently and steadily forced the water into the catheter—at the same time holding the urethra close to the catheter with the left hand, while he gently presses down the catheter with the right hand. The water opened up the way, and the catheter passed into the bladder, and a stream of urine flowed out, to the instant relief of the patient. The operation was repeated regularly until the abscess burst—thus relieving the constriction of the urethra. The other case was that of a friend who had two urethral strictures as a result of gonorrhœa years before. Under an eminent surgeon, the first stricture, three inches from the meatus, was partially dilated, but he could not enter the second stricture, which was just anterior to the prostate. The operation of urethrotomy was declined by the patient. The urine came away only in drops, and oftentimes only after relaxation of the sphincter ani, when he came under Dr. King. After etherization, Dr. King tried to pass a No. 2 bougie, but failed. Larger instruments could not be entered. The filiform instrument belonging to Gouley's divulser also failed. Then he introduced a No. 6 silver catheter down to the stricture, attached the nozzle of a rubber syringe, filled with water, to the end of the catheter, and holding the urethra tightly around the catheter, he forced the water through

the catheter into the bladder. After doing this forcibly and rapidly two or three times, he followed the passage of the water by gently pressing the end of the catheter toward the open space between the thighs. The catheter passed into the bladder. He then withdrew the catheter, and passed Gouley's divulsor and divulsed the stricture. The after-treatment was as usual.—*Virginia Medical Monthly—Indiana Medical Journal.*

LIMITATIONS OF THE CONTAGIOUS STAGE OF SYPHILIS IN ITS RELATIONS TO MARRIAGE.

I have never seen a case of syphilis presenting an undoubted lesion of the secondary or active stage after the termination of the second year. I have seen a goodly number of cases of recurring papular syphilide—especially upon the hands and feet, occasionally upon the body—two or three years after an infection which had been thoroughly and systematically treated from the beginning, and I have always considered them as due to damage done to the lymph-channels, during the previous active stage of syphilis. After the third, year, in three such cases, marriage has been entered into with my consent; and in two, recurrences in the identical places formerly occupied took place nearly a year after marriage, and in both these cases the wife remained uninfected, and healthy children were reported, one now three and the other two years old. I have seen frequent lesions of the tongue, from two to a dozen years after infection, the sequel of mucous patches occurring during the active stage, which have been asserted by physicians to be mucous patches, and capable of transmitting syphilis. Sometimes these would present simply as pale pearly stains, or whitish patches, sometimes erosions and ulcerations, and cracks again appearing as irregular spots covered with a white or grayish pellicle with more or less induration. Such lesions I have never known to prove a source of syphilis to others, although coming into most intimate contact, such as between man and wife, for a series of years, during which recurrences had taken place. Hence, I do not hesitate to state, that such forms of trouble, occurring as a sequel of syphilis, three years

or more after infection, do not contain the contagious property of syphilis, and hence cannot communicate it. I have also seen numerous cases and observed them during long periods, in which marriage has taken place from three to twelve or more years after a syphilitic infection of the father, and I have never yet seen a single symptom in the wife or in the children born of such a marriage. In the reported cases where syphilis has been claimed to have been contracted from persons where syphilis had its irritation three or more years previously, I believe that if the truth could be ascertained it would be shown that the disease was not contracted from such persons, but always from a source less than three years from date of infection. The overwhelming evidence as to the improbability of the communication of syphilis, after the first three or four years from the date of infection, as shown by the statistics of M. Fournier, should lead to the greatest opposition in accepting cases alleged where syphilis has been acquired in contradiction of this position.—*Dr. Fessenden N. Otis, in Journal of Cutaneous and Venereal Diseases—Indiana Medical Journal.*

THE METHOD OF ANTYPHLOGIST FOR THE TREATMENT OF ANEURISM.

Before the invention of the operation of ligation for the treatment of aneurism, the only operation in use was that attributed to AntypHlogist, which consists in cutting down upon the sac, ligating the artery on both sides of it, and then splitting open the sac or excising it. Amputation, which was the only alternative, can hardly be considered anything but a mode of avoiding any direct treatment. But with the invention of the operation of ligation the ruder method of the older surgeons was almost wholly superseded, and the method of AntypHlogist is now almost obsolete. From time to time, however, exceptional cases have arisen in which it seemed impossible, or clearly unwise, to practise the modern method, and in such cases the method of AntypHlogist has been employed. This was notably the case in a number of patients operated upon by Syme; and other surgeons have found it preferable to amputation in cases of trau-

matic or diffuse aneurisms. In 1884, Murgulovic, in an Inaugural Dissertation, reported a successful operation of this sort for the cure of a traumatic aneurism of the femoral artery. A year ago Largeau, in the *Archives Gén de Médecine*, March, 1885, strongly urged the general employment of the method of Antyllus for all aneurisms of the popliteal artery. Most recently Sonnenburg, of Berlin, has reported a successful operation of this sort, and made some interesting comments upon the method in the *Berliner klinische Wochenschrift* for March 1, 1886. His patient was a sailor, forty-nine years old, with pronounced sclerosis of the arteries, who applied for relief from a spontaneous aneurism of the popliteal artery, which he had observed for only about two months. The size of the tumor was about that of an apple. He was unable to bear digital compression, and Sonnenburg feared gangrene in case he ligated the femoral artery. In choosing between the method of Antyllus and amputation, he decided upon the former. The operation was conducted according to the bloodless method of Esmarch. It was extremely difficult to separate the sac from the surrounding parts, especially the veins. The vessel was ligated above and below the aneurism, and was divided at two points, about six inches apart. The cavity was disinfected with iodoform and lightly packed, a drainage tube was inserted, and the wound was sewed up, after which the leg was enveloped in cotton and slightly elevated. The operation lasted about two hours. The collateral circulation was soon established, but localized gangrene occurred in the sole of the foot, along the lines of distribution of the terminal branches of the posterior tibial artery. The patient was dismissed from the hospital in four months and a half, and at the end of six months had full use of his leg, with free motion at the knee-joint and no apparent defect except some tenderness at the seat of the gangrene.

The operator, in his paper, urges the importance of preserving the integrity of the popliteal vein in an operation of this sort, and argues that the conditions are more favorable for the establishment of the collateral circulation after occlusion of the popliteal artery, than after occlusion of the femoral below the origin of the profunda. This depends upon the fact that the *suprema genu* plays an important part in the establishment of the collateral circulation when the femoral is left open, but is excluded from participation in it when this vessel is ligated. This advantage is lost, however, if

the ligature is placed very high up on the popliteal, or encroaches upon what is properly the femoral artery.

It is often objected to the method of Antyllus that secondary hæmorrhage is very common after it. But, as Sonnenburg observes, this objection is mainly founded upon experiences which antedate the advances and refinements of modern surgery. There can be no doubt that a more frequent employment of this method at the present day would lead to a much better exhibit of results than it has heretofore shown. Something may be said, too, as to the dangers attendant upon any other method of treatment of aneurisms, especially of the popliteal artery. In this city, digital compression may be said to be the method of choice; and the results obtained by Philadelphia surgeons certainly warrant this preference. The operation of ligation of the femoral artery is usually reserved for cases which have resisted careful and thorough compression with the fingers of a relay of assistants. But failures have occurred everywhere after the employment of either, or of both methods, and a study of the recent literature of the subject shows that secondary hæmorrhage, gangrene and death, are not very uncommon sequences of these methods. It is not easy to determine just when it would be proper to prefer the ancient method of Antyllus to ligation or compression, although it is, probably, not too much to say that it ought almost always to be preferred to amputation. With the advantages of anæsthesia, the bloodless bandage, and the use of aseptic methods, it might prove to be wise to try the applicability of this mode of operating to other than the most difficult sorts of aneurisms. And if a number of simple aneurisms of the popliteal artery were to be treated by excision, instead of by distal ligation, this plan might come into greater favor than it can so long as it is regarded as a last resort.—*Medical News*.

CHLORAL AS A VESICANT.—Hydrate of chloral has, according to the *London Medical Record*, been successfully employed instead of cantharides for blisters. For this purpose powdered chloral is sprinkled on previously slightly warmed adhesive plaster. Vesicles are raised by it in about ten minutes. The advantages of this blister over other kinds are rapid and perfectly painless action, and absence of any of the troublesome effects sometimes caused by cantharides.

MALADIES OF THE MOUTH IN INFANTS.

Among the tumors observed in the mouths of infants, we meet not infrequently with the excrescence on the gum known as *epulis*. This partakes, at the same time, of the nature both of the *papillona* and the *sarcoma*. The greatest trouble usually found with them is that they constantly recur. We generally find them situated between two teeth in the form of a small, round, red swelling. This should be completely extirpated, and to prevent its return, the whole surface of the implantation should be scraped and cauterized with the thermo-cautery.

There is in infants a so-called affection of the mouth about which we are frequently consulted, but which for the most part does not exist outside of the imagination of parents. I refer to a supposed abnormal development of the *frænum linguæ*. It was formerly believed that all infants had this tendency from birth, and it was the habit to cut the false ligament, or to make-believe cut it—for in a majority of cases it has no existence. In the very rare cases where it does exist, it may appear under one of two forms: If it consists merely of a membranous and pellucid substance, and contains no vascular element, there is no harm in cutting it. But if the *frænum* is short, fleshy, or of a dull, whitish character, it must not be cut, as such action might give rise to mortal hæmorrhage. When section is thought desirable, it should be made with the scissors, using the fingers of the left hand as directors and dividing a little at a time. Performed in this way we need not fear hæmorrhages or a tearing of the membrane. But we must remember that the cases in which the operation is necessary are rare, and we must learn how to resist parents who demand its performance. It is usually done out of pure complaisance.

The teeth, which are sometimes found in the mouths of infants at birth, are also a frequent cause of the unwise solicitations of parents, who always demand that they be extracted. Such operations are dangerous. In one case an accoucheur, having extracted two teeth from a newly-born child, brought about a hæmorrhage which resisted all treatment and caused death in twenty-one days. In such cases, however, the mistake may be remedied, as in other dental hæmorrhages, by forcing soft wax into the alveola and keeping the substance in place as long as may be necessary. I have used this method for

arresting hæmorrhages in hare-lip after excision of the superior maxillary.

Two kinds of ranula appear in the mouths of infants—the ordinary and the sanguineous tumor. The latter is rare, and the greater part of the excrescences so described are simple erectile tumors. Ordinary ranula does not usually become large, because parents take great care of infants who are troubled with it. It frequently remains stationary, and it is best in operating to take advantage of the moment when it is at its maximum size, for it should be treated before it has a chance to break. The best procedure is excision, followed by cauterization with nitrate of silver. The walls of the cyst should be seized and drawn outwardly, and a segmentary section made of the upper surface. An orifice is thus obtained, through which the interior may be reached with the caustic, which should be spread over the entire internal wall.

Wounds of the tongue are frequent accidents in infantile pathology, and, at first sight, seem to be important. The tongue is in fact sometimes cut through by the teeth. In certain cases doctors consider it necessary to put in sutures; but there is no utility in the operation. It is a difficult and painful procedure and may well be avoided. These wounds end by healing spontaneously and almost without leaving traces, while they give no trouble, either in masticating or speaking. Means should be used simply to keep the organ as quiet as possible for a few days. It is much the same with wounds of the palatine arch. There may exist what seem to be frightful lacerations, but in these cases there is nothing to be done. The cicatrization is very rapid and complete, even when the wounds are large.

The uvula has, in certain cases, an unusual length and volume. It has been thought that certain coughs of a chronic character were due to the permanent contact of this organ with the base of the tongue. This state of things has certainly been much exaggerated, and the cutting of the uvula has been resorted to in very many cases where the operation was valueless. But there are cases in which the procedure is necessary. The operation is not, however, as easy as might at first sight appear. The uvula in such cases is much thicker than is supposed, and if undertaken without due precaution, there is risk of an incomplete operation. It should be seized bodily in an open clamp, or frame-forceps [*pince à cadre*], and the section made with exactitude.—By Dr. De Saint-Germain—Translated for the Medical Abstract—*Journal de Médecine et de Chirurgie*.

DRUGGING IN THE DARK.

Such is the practice complained of by a correspondent of a contemporary, who finds that many physicians administer medicines in what seems to be a reckless and unscientific manner—"Strychnine, arsenic, digitalis and aconite, are favorite remedies in all sorts of diseases." Used in this connection, we may very well object to the word *remedies*; in other respects we must agree with the complainant, adding that in America quinine seems to hold a high place in the list of drugs that are prescribed when there is some little doubt as to the diagnosis. "Pills and mixtures containing many poisonous drugs are commonly prescribed, even when the practitioner is quite in the dark as to what the cause of the disease may be. With some the rule is, when the cause is unknown, to mix a great many poisonous stuffs, in the hope that one of them may hit the enemy. A wiser and safer course would be, when the diagnosis is uncertain, to give, in the name of remedy, something that cannot possibly injure the patient."

We are not at present prepared to say whether or not this is a growing evil; though it is to be hoped that it is not. Without doubt it is due to a great extent to a habit of making "snap" diagnoses, or of making no diagnosis at all. When a diagnosis cannot be arrived at immediately, a physician will often prescribe what he thinks will do no harm, with the hope that he can get at the truth of the matter when he next sees the patient. This may be due to a suspicion that the patient thinks that he should be taking medicine; since the idea of taking medicine whenever possible is deeply rooted in the minds of the laity, as shown by the enormous amounts of patent medicines used. In very many cases, however, a certain combination of drugs is given because some of the symptoms point to a particular affection, and this combination has been prescribed for that affection by a teacher or some eminent physician. This is evinced by the books containing formulæ, compilations of favorite prescriptions, and ready reference books which seem to find such a ready sale. It is often very difficult to convince a patient that he does not need medicine; but it is just as important that the physician should know when *not* to give medicine as when to give it. Possibly more "drugging in the dark" is done in

renal and cardiac affections than in any others, on account of an apparent obscurity connected with them. Much of this is due to the fact that the urine is often improperly examined, and frequently not examined at all. Much useless, or even harmful drugging would be done away with, if physicians would thoroughly acquaint themselves with the principles and significance of arterial tension—increased and decreased. After all, the whole matter is resolved into the one principle: Never give a dose of medicine without a clear and definite idea of the result to be attained.—*Journal of the American Medical Association.*

VIBURNUM PRUNIFOLIUM, OR BLACK HAW, IN ABORTION AND MISCARRIAGE.

Dr. John Henry Wilson, in the *British Medical Journal*, in giving his experience in the use of this medicine in cases of abortion and miscarriage, says: "In the number of the *Liverpool Medico-Chirurgical Journal* for January, 1885, I reported six typical cases treated successfully by this medicine; and since then, after considerable experience, I have been more and more confirmed in its value. I cannot say it has always succeeded, but in those cases in which it failed, I have been able to account for its doing so. Either the medicine has not been commenced in time, and the ovum has been detached before the viburnum has been taken, or there has been some reason to suspect a syphilitic taint; and, in a case of fatty degeneration of the placenta, after not succeeding with the viburnum alone, chlorate of potash was taken in addition, with a good result.

"Dr. Napier says 'some women abort on the slightest provocation,' and they continue to do so, although every care may have been taken in the way of rest, medicine, etc., to prevent it. I have had many such cases, and have been greatly disappointed; but when I have had the opportunity of commencing the viburnum shortly before the anticipated period, and continued it at intervals on the first appearance of threatening symptoms, these patients have invariably gone on to the full time, and done well, without being subjected to restrictions or debarred from active exercise.

"In the next class of cases, where there may be reason to suspect even a partial separation of the ovum and a dilated external os, with severe pains and hæmorrhage going on for hours, and the patient under the impression that she could not possibly go on to her full time, and when I had almost despaired of any benefit from the medicine, I have been astonished at its effect, more than three-fourths of these cases doing well.

"The most sanguine advocate of viburnum could not expect it to do impossibilities, or to prevent abortion when there is a 'gaping os, and a detached ovum presenting.' One might as well expect to resuscitate a dead body by galvanism.

"I have never seen ill consequences follow the administration of the medicine, however often the dose has been repeated. In two cases only has it been followed by slight headache. One patient inquired if she had not been taking quinine. The symptoms had been relieved; therefore it was not continued. In the other case the patient had taken four grains of the extract every two hours. The only change was to extend the interval to four hours, and then gradually discontinue it.

"Some patients have taken viburnum at intervals during the whole course of their pregnancy. It seems to act as an uterine tonic and sedative, and to relieve the woman of those harassing nervous forebodings which often lead to abortion. The patient, after taking only a few doses, has quite a changed expression. From a drawn, desponding look, her countenance becomes cheerful and happy.

"Since I have prescribed viburnum it has not been necessary to keep the women in the horizontal position more than a few days; whereas, under the old treatment, they occasionally spent weeks in bed, and after all, abortion has taken place.

"On some of the plantations in America it is the popular belief a woman cannot abort if she be under the influence of black haw, although she may be taking medicine with a criminal intent. My experience would go far to confirm that opinion, for I have had patients in whom a succession of abortions have taken place, but, when under the influence of the medicine, they have been able to resist the severest tests—frights, falls, strains, etc.—and no ill effects have followed.

"With regard to the mode of administering the drug: at first, the

liquid extract was ordered, but the smell was so strong and objectionable, that the whole house became impregnated; and in two cases, where the stomach could not retain it, the liquid was given as an enema.

"I now order the extract in pills of four grains, and find it a convenient form; as usually made, they soon absorb moisture, and run into a mass; but I now advise them gelatine-coated, as prepared by Parke, Davis & Co., of Detroit, who seem to have been the first to introduce this medicine to the profession. I have no doubt others would make them equally well. These pills keep any length of time, and I advise my patients to keep a supply by them.

"I have such confidence in *viburnum prunifolium* that I am anxious the profession should give it a trial, feeling assured they will not be disappointed."

DIALYZED PITCH.

The healing property of vegetable resins are well known, and extracts therefrom in various forms are extensively employed in medicine; but they are more or less objectionable, as heretofore no means of removing or separating the foreign and hurtful substances have been used. Mr. Charles J. Ulrici, a chemist of Havana, Cuba, has succeeded in obtaining, by dialysis, a new and pure preparation, which is believed to be of importance for medical purposes.

The first operation is the filtration of the pitch to separate certain substances, which in its natural state are incorporated with it, such as vegetable remains, carbon dust, bits of leaves, earthy matters, deposits of smoke, and other impurities. These substances are separated and removed by the filter, while the heat applied drives out a portion of the bad or poisonous principles, which become volatilized by the heat.

Vegetable pitch may be said to be composed of two parts, one portion consisting of combined dense empyreumatic resinous matters of dark color; and, second, another of liquid nature, which holds in solution the first part. The acrid and nauseous odor of the raw pitch is due to the poisonous or hurtful substances, some of

which are pyroligenous acid, formic acid, wood spirit, or methylic alcohol, aldehydes, acetones, methylic acetates, creosote, cyanides of ammonia, and benzines, and these substances, by means of bicarbonate of soda, become capable of being removed by the operation of dialysis.

The dialyzing apparatus is made with vegetable parchment in the usual manner. The dialyzer is placed within a suitable vessel containing distilled water upon a level table, care being taken that the level of the exterior liquid is the same as the level of the liquid contained within the parchment or dialyzer. The whole is allowed to stand three days, at the end of which time the exterior water is removed and a new quantity substituted. The first water is then tested with sulphuric acid, and note is taken whether there is any effervescence or discharge of carbonic acid. If there is, the dialyzation is continued for three days more, when the exterior liquid is again tested in the same manner described. If there is no effervescence, then the operation of dialyzation is complete, and the poisonous and injurious principles contained in the mixture will have been extracted therefrom and carried over to the exterior liquid, together with the sugar and the bicarbonate of soda, that which remains in the dialyzer being a neutral solution of colloidal and chemical nature derived from the useful principles or components of the pitch, the poisonous or hurtful principles or components having been removed.

The dialyzed pitch is then concentrated by the application of a gentle heat to evaporate it slowly. It is then mixed with coarse sand, and then evaporate from this mixture, with gentle heat, a portion of the water. The sand, after losing the water, will remain damp. Allow this to become cool, and then place it in a lixiviating apparatus.

This operation has for its object to dissolve the concentrated and dialyzed pitch that is imprisoned in the sand. This is accomplished by means of a suitable liquid vehicle, whereby the dialyzed pitch will be liberated from the sand and taken up by the liquid vehicle, and in this manner is constituted the extract of dialyzed or colloidal pitch. The lixiviation is prepared for use with a liquid vehicle composed of alcohol and glycerine.

The operation of lixiviation makes a complete extract of the pitch which is imprisoned in the sand. Every portion of the liquid

vehicle, when it comes in contact with the sand containing the pitch, becomes charged with a proportional quantity thereof, and each portion of the liquid vehicle takes up a portion of pitch until the whole has been completely dissolved and all the pitch contained in the sand joined to the water, alcohol and glycerine, these three bodies being powerful and inoffensive solvents, and being the vehicle of which most fluid extracts are made.

This compound or fluid extract of dialyzed pitch thus prepared is of great medicinal value, as the hurtful substances have been removed. It is used for various medical purposes, such as the treatment of bronchitis, of throat diseases, of ulcers of all kinds, herpes, chronic rheumatism, scrofula, sores and diseases of the skin.—*Scientific American*.

DR. SAUNDBY says that the styptic taste of tincture of perchloride of iron may be disguised by administering it in sweetened milk. This mixture has the further advantage of not affecting the teeth.—*Medical Record*.

ABOUT 22,000,000 of teeth are annually extracted in the United States, and, I regret to say, this enormous loss of teeth is to no small extent caused by the indifference manifested by physicians in the anatomy, physiology and pathology of these organs. It is a fact no one will attempt to gainsay, that hygienic measures directed toward the preservation of the deciduous set, if understood, are seldom recommended by the general practitioner to the families under his charge. The premature loss of these teeth paves the way for early lesions of the permanent set. The pain resulting from advanced caries of the deciduous teeth, owing to the difficulties encountered in controlling the patient, is not easily treated; moreover, the injurious impressions thus made on the system of the child abide through life. There are, no doubt, hundreds of thousands of teeth unnecessarily extracted next year, and then drugs are given with a view of curing the patient of the disorders of digestion and other abnormal conditions which follow, and which in turn arise from imperfect mastication of food, verily for the want of teeth.—*Dr. Brophy*.

LANOLIN AS A BASE FOR OINTMENTS.

We have given all the essential information regarding lanolin in our March number, page 43. It has been very highly recommended as a base for ointments by Prof. Liebreich and others, and is already in considerable use all over Europe and in this country.

Like all new products, however, it is likely to be abused, and it will require sometime to ascertain its proper sphere of utility. Being so rapidly absorbed by the skin, the manufacturers recommend that it be mixed with a small proportion of lard or cerate, to retard its absorption. A circular has recently been issued in which are given a large number of working formulæ for various ointments made with vaseline. We notice among them several that, on theoretical grounds, appear to be very inappropriately made with lanolin. Every drug that is presented to the skin in an ointment is not intended to be absorbed. Indeed, some would be perfectly useless if absorbed, and others would be highly injurious. Take, for instance, the *Pulvis Arsenicalis Cosmi*. This is intended purely as a local caustic, and the less tendency there is given to the accompanying ointment to sink into the skin, the better it would seem to be. It must not be forgotten that lanolin differs from other ointment bases in this, that it contains a large percentage of water. This water is certainly capable of dissolving some of the arsenious acid, and when absorption takes place it is natural to expect serious results. It is true, we have no proof as yet, through actual experiments, that our surmise is correct, but we are certainly justified in warning against the incautious use of this substance. Similar objections will probably be found justified in such lanolin ointments as are made with red oxide of mercury, nitrate of silver, pyrogallie acid, white precipitate, naphthol, etc., etc., the effects of all of which are desired to be purely local and superficial.

On the other hand, when the constitutional effects of a drug are required, as, for instance, in the case of metallic mercury, lanolin appears to be very much in its place.

It is probably not so much as a base for ointments containing active medicinal substances, but as a bland application *per se*, that lanolin will be found beneficial. However, only time and further experience can settle this question. Meanwhile, it is advisable to be cautious in combining with it active substances, particularly such as are soluble in water.—*American Druggist*.

THE MANAGEMENT OF EARTH CLOSETS.

To those persons who live in similar cities, in villages and in country districts, where the advantages of a sewerage system are not accessible, and in large cities where sewers are not extended to outlying districts, there is no such easy and economical method of disposing of excreta as by using earth closets.

The primitive and barbaric privy pits are universally condemned, and almost as universally used. Earth closets can take their place in a majority of instances without disturbing the habits of the family, and with great benefit to their health. The old privy can, by a little home carpentering, be fitted into a good earth closet. The pit should be cleaned as thoroughly as possible and refilled with clean earth. The lower portion of the back of the old structure may be fixed as a door to raise up, to permit the removal and placing of the soil containers, which should be either galvanized iron pails or strong wooden boxes. The earth may be kept in a box or barrel in the structure itself.

The trouble with remodeling the out-building for an earth closet is that it makes no change in the publicity of access, or the disagreeableness of reaching it in stormy weather. As an earth closet, properly constructed and managed with a due regard for decency and cleanliness, need not be an offense to sight or smell, it can be so built as to place it in some side-room or shed attached to the dwelling and under the same roof. In this case a portable, easily-managed closet is necessary.

The value of dry earth as an absorbent, deodorizer and disinfectant is not properly recognized. It is said by some to be more powerful in these capacities than any other agent known. If two parts of dry earth are put with one of excrement and kept in a dry place, the two assimilate, the excreta becoming indistinguishable from the soil after a time, and it may be used over and over again, though it is generally better to bury each pailful in a different place each time over a portion of the land adjoining the residence. The earth must not be sand or gravel, but soil of a clayey nature, thoroughly pulverized. Powdered charcoal, coal ashes and street dust are equally effective.

Earth closets offer many advantages, chief of which is that when they are properly cared for, the excreta of one family is rendered

perfectly harmless and disposed of on the premises, not being liable to soak into a neighbor's well. There is no offensive odor or contamination of the soil. They may be placed under the same roof as the living rooms, and thus be easily accessible to women, children and invalids.

There are many failures of earth closets to give satisfaction, but the failure is due to an inability on the part of the owner to understand their capacities. They must not be made the receptacle of house or chamber slops, as the ability of the dry earth to absorb moisture is necessarily limited, and any excess of its capacity creates a nuisance. A great improvement has been perfected in earth closets by Mr. William Heap, in an automatic urine separator, which prevents undue soakage of the earth, and does away with the only source of annoyance in their legitimate use.

The death-rate from zymotic diseases has been shown to have been much reduced by the introduction of proper systems of sewerage, as at Memphis. There is no doubt that the uniform adoption of the dry earth system of soil removal would show a corresponding reduction in the death-rate, from typhoid fever especially.—*Sanitary News—Cincinnati Lancet-Clinic.*

At the commencement of the Louisville University of Medicine the degree of Doctor of Medicine was conferred upon 81 gentlemen.

THE TREATMENT OF FISSURE OF THE ANUS WITHOUT OPERATION.—Mr. A. D. MacGregor (*British Medical Journal*, February 27, 1886) states that he has had perfect success with the following treatment: He first moves the bowels thoroughly with castor-oil and rhubarb, and then gives an enema of Condy's fluid. The anal speculum is now introduced, and the fissure painted with a solution of chloride of zinc, twenty grains to the ounce. A piece of lint covered with boric-acid ointment is next introduced within the anus, and the patient's bowels are confined, only liquid food being given. The after-treatment is equally simple, consisting of occasional applications to the anus of lint covered with a powder composed of half a drachm of boric-acid and an ounce of violet powder. There is said to be but little pain during this treatment.—*New York Medical Journal.*

NOTES.

PRURITUS.—Two drachms of carbonic acid to one ounce of glycerine and eight of water, is recommended for itching of the skin.

A DEFINITION OF GOUT.—Dr. Milner Fothergill gives the following succinct account of the pathology of gout (*Medical Record*, November, 1885): "When kidneys first appear in the animal kingdom the form of urinary secretion is uric acid. Uric acid belongs to animals with a three-chambered heart and a solid urine (reptiles and birds). The mammalia possess a four-chambered heart and fluid urine, the form of urinary secretion being the soluble urea. When the human liver becomes depraved or degraded, it has a tendency to form primitive urinary products. To the question, 'What is gout?' the answer is: 'Gout is hepatic reversion, when primitive urine is formed by a mammalian liver.'"—*Medical Herald*.

HOPS AS A MYDRIATIC.—In reply to the claim of the discoverer (?) of hopeïne, that this so-called active principle of hops was similar to, if not identical with, morphine, a correspondent, "Z. A. J.," in the *American Druggist* for May, says that while he will not deny the presence of an active principle of this character, he is in possession of facts which induce him to think there is another principle in hops antagonistic to the action of the morphine, and very much resembling atropine in its effects. He says a workman in an iron-plating shop of the Navy Yard (New York) called at the surgeon's office and told him that he had been suffering with a supraorbital neuralgia over the right eye, and had covered the eye with a hop poultice which had remained on all night. The next morning he found that the pupil in this eye was dilated to its full extent, the other eye being unaffected. This dilatation lasted a week, and no treatment was instituted for relief of this particular condition. The correspondent says upon inquiry among his medical friends, who had knowledge of persons employed about breweries, he found that this same phenomena had been observed in men who came in contact with the steam that rises from the hot fomentations made directly from the hops. It was noticed that these men suffered only a short inconvenience, lasting only a few minutes after coming into a strong light.

A TRUSS WITH A GLYCERINE PAD.—A truss is manufactured in England which has a pad made of India-rubber and filled with glycerine. It has been found that the glycerine does not evaporate or leak through the rubber, and the pad always remains soft and comfortable. The latter has sufficient resistance to overcome the ordinary forms of hernia, and, from its peculiar construction, adapts itself well to the surface, and completely closes the external ring without enlarging it.—*Medical Record.*

THE NEWBERN MEETING OF THE MEDICAL SOCIETY OF NORTH CAROLINA.—The Newbern meeting is at this writing in session. The editor desires to express his regrets that he is physically disabled from attending. He hopes and believes the meeting will be a successful one, for how could it be otherwise with a Society which has laid its foundations so well and so deeply? With its present legal equipment, with ranks now yearly recruited by physicians of higher and better education; with little or no hostile elements within the ranks; with a hearty public opinion sustaining and supporting the profession in all its movements for bettering the status of the profession, the profession of this State has a very bright future.

THE ASSOCIATION AND THE CONGRESS.—The action of the American Medical Association in continuing the policy and organization of the Executive Committee of the International Medical Congress only fulfilled the general expectation. If the act had been done in a less arbitrary manner, without first excluding all persons likely to bring up any discussion or opposition, a general effort at coöperation might have been secured. But the organization and management are definitely settled, and we have no desire now to hamper its future work. We do not think that hereafter the International Medical Congress will meet with any aggressive opposition or criticism. Its managers have chosen their course, and we shall be glad, for the sake of our country's reputation, to see them successful in it. But how can it be denied that the medical profession of this country is now very imperfectly represented in the organization of the Congress? And how can fair-minded persons help feeling that it is a serious mistake for the men who now are connected with it to go before the world as representatives of the best of the medical profession of the United States.—*Medical Record.*

THERE is a man named Smith living in one of the small towns in Michigan who claims to be a dentist. A sign over his door, painted by himself, reads: "Teeth Extracted Without Enny Payne, Laffin Gas Ten (10) Cents a Ha Ha!"—*Lancet-Clinic*.

ANTIPYRINE IN PHTHISIS AT DAVOS.—Dr. Hoedmaker, a Dutch physician, practicing at Davos Platz, has made a number of observations on the effect of antipyrine on phthysical patients, from which he has come to the conclusion that patients not treated with antipyrine are more comfortable than those who are taking it, though these latter have less fever. He has found salicylic acid most valuable in phthisis, especially when combined with arsenic.—*London Lancet—Medical Age*.

THE DIET IN DIABETES.—Articles permitted: Almonds, plain, in rusks and in biscuits, bread toasted or stale maccaroni, bacon, butter, cheese, eggs, fat and oils, beef-tea and soups, beef, mutton, fish, game and poultry, cabbage, lettuce, pickles and spinach, custards without sugar, cream, jellies unsweetened, nuts; coffee, cocoa, sherry. Articles forbidden: Peas, beans, lentils, Irish potatoes, sweet potatoes, celery, carrots, beets, radishes, mustard, oysters, arrow-root, buckwheat, sago, tapioca and puddings generally, apples, bananas and fruits generally, including raisins; milk, sugar, chocolate, ale, sweet wines.—*Journal of Reconstructives*.

THERE are three planes in the history of medicine. The first is the study of the symptoms or appearance of disease. It is the period of the infancy of medicine. It is naturally the most crude period, and all irregular medicine still rests upon this plane. It gave us a pharmacopœia, and the highest expression of it made of the practice of medicine an art. The second plane begins with the observation of the effects or lesions of disease. It made us familiar with the natural history of disease, and thereby nearly destroyed the pharmacopœia. The third is the present plane, upon which is being prosecuted investigations into the cause of disease. Investigators have just set foot upon its threshold. When it shall have been fully attained, medicine will be entitled to a place among the sciences which are called exact.—*Dr. Whittaker's Address in Medicine in Medical News*.

READING NOTICES.

MR. CHAMBERLAIN:—*Dear Sir:*—I hereby certify that one of my family has been a great sufferer for five or six years from Piles in their worst form, and by the use of your patent Water Closet Seat is entirely relieved.

Respectfully, ED. PENNINGTON.

Tarboro, N. C., September 5, 1884.

FRED. B. WOOD, M.D., 456 Broadway, Milwaukee, Wis. —I have given Peacock's Bromides a *thorough test*, and am pleased to state that after an experience of twenty-five years I have never found any remedy which acts so surely as this preparation does. I am sure that in the near future, especially in the treatment of the brain and nerves, it is destined to take the place of the older preparations to the benefit of both physician and patient.

DR. B. F. NICHOLLS, Physician to the Howard Hospital, Philadelphia, Pa., in a recent article on Nervous Diseases, in the *Medical Brief*, states that, from his experience with Celerina, he believes it to be a remedy that will meet the indications of all cases where nervous prostration plays an important part. He has used it in nervous headache, nervous dyspepsia, spermatorrhœa, heart trouble, and many other affections dependent on disordered nerve action or exhaustion of nerve force.

"I write to say that I am more than pleased with the Elliott Patent Medical Saddle-Bags, and I have used them sufficiently long to give me a very high appreciation of their compactness, lightness and convenience of arrangement. These advantages they present in an eminent degree over the styles generally in use. Physicians in country and town practice will find them useful and invaluable.

("Signed) A. M. FAUNTLEROY, M.D.,

"Ex-President Medical Society of Virginia.

NORTH CAROLINA MEDICAL JOURNAL.

THOMAS F. WOOD, M. D., Editor.

Number 6. Wilmington, June, 1886. Vol. 17.

ORIGINAL COMMUNICATIONS.

A HISTORY OF THREE CASES OF PLACENTA PRÆVIA, PRESENTING UNUSUAL COMPLICATIONS, WITH COMMENTS.

By B. M. CROMWELL, M.D., Eckhart Mines, Md.

I offer the history of the following cases of placenta prævia for publication, because of the unusual features attending them, and because I think all cases of this grave departure from normal parturition should be recorded :

Case 1.—Mrs. C., aged 24 years, the mother of four children—no trouble with any previous confinement. Became unwell, rather profusely so, at her regular time late in June, 1885, since which she has seen nothing which led her to believe herself pregnant, dating its occurrence on or near the first of July following. During the latter part of July and the first part of August she was confined to her bed with a very obstinate attack of sciatica, which, it was thought, might account for the non-appearance of the menses at its next recurring period, nevertheless pregnancy was suspected, and its existence was fully established a month or so later.

On November 12th she sent for me, stating that she had lost, the

previous night, quite a quantity of blood. I suspected an abortion, either actual or threatened, although she declared that no lump of any kind had passed. On the 26th of the same month she experienced a recurrence of hæmorrhage that acted as did the other—a sudden and profuse flow, attended with no pain or premonition, and ceasing almost as suddenly as it came.

Again on the 8th or 9th of December she had a similar hæmorrhage, and still another one two or three days afterwards. Early in the morning of December 29th she sent for me again, saying she had bled profusely during the night, and she was then in labor, which statement I verified by an examination. I found the patient pale and anæmic and very irritable from her repeated losses of blood; the abdomen had the appearance of six months pregnancy, and the os uteri was so contracted and resisting that I could not pass my finger into the womb.

As labor had fairly set in, and as I was sure I had a case of placenta prævia to contend with, I determined to hasten delivery by all means.

Procuring the valuable aid of Dr. A. B. Price, of Fortburg, to whose kindness I am indebted for assistance not only in this, but in the two cases hereafter to be recorded, I proceeded to dilate the os by the introduction of Barnes' dilating bags. I introduced the smallest size with much difficulty, so great was the resistance of the unyielding os; afterwards, as I was able, I used the sizes larger. The resistance to the action of the bags was as persistent as it was unlooked for, for the rule in these cases is, that the antecedent hæmorrhages have so relaxed the uterine tissues as to render dilatation easy of accomplishment.

After about two hours of persistent effort, the mouth of the womb was sufficiently dilated to admit of an examination of the cavity of the uterus, when the placenta was found to be overlaying the os, not centrally, but almost so; through the space left the head of the child could be felt presenting. I cannot recall now whether, at this point, I ruptured the bag of water to let the head well down on the bleeding surface, or whether, relying on the Barnes' bag to prevent external hæmorrhage, I thought it best to keep the uterus as full as possible to prevent concealed hæmorrhage. I know, however, that such was my reasoning, and that it proved fallacious, for, to anticipate a little, when delivery was effected, an alarming quantity of blood and clots came with the fœtus, showing that hæmorrhage had taken place in the womb.

The pains continued at regular intervals and of sufficient force to have been ordinarily rapidly effective, but the unyielding rigidity of the os was such that the bags, kept fully on the stretch, were unable to overcome it sufficiently to allow the head of a six months foetus (not much if any greater in diameter than a silver half dollar) to pass until 2 o'clock P. M.—over eight hours from the time I first saw the patient. I was not present when delivery was effected (Dr. Price having returned from his dinner—I had gone to mine), but Dr. Price described the head as popping through the os pretty much as a cork would pop out of a bottle. The placenta which was adherent was removed, or so much of it as could be reached and scraped away with the finger. The loss of blood at the time of delivery was not excessive, the most that was lost being that which had accumulated in the uterus during labor, and that came away as clots. Her convalescence was attended with some fever for the first few days, but otherwise does not call for special remark. The weight of the foetus was estimated at about one and a half or two pounds, and its length at about ten inches. The mother had ceased to experience any motions in the child after the last bleeding before labor set in, and its death may be assumed to have occurred then or shortly afterwards.

COMMENTS.

The occurrence of hæmorrhage in placenta prævia at so early a period as four months and twelve days after conception is very unusual. Usually bleeding does not occur until the seventh month, more generally until the eighth or ninth month of gestation, as it is then that the os and cervix are undergoing those changes of form and relative position preparatory to the birth of the child at term. Its occurrence at so early a period could not be otherwise than perplexing and misleading. The most natural inference was the one I reached, namely, that it was an abortion, actual or threatened.

The other point of interest in this case was the obstinate rigidity of the os uteri. Such an occurrence was quite unlooked for, as the repeated hæmorrhages the woman had been subjected to, it was thought, would render artificial dilatation quite easy. For that purpose, and to meet the exigencies of this case, I procured a set of Barnes' bags, so that when labor should set in, or before, if neces-

sary, I could effect delivery at my pleasure. I have described, in giving the history of the case, how disappointing my efforts were, and how the labor was protracted to a period of over eight hours, when I fully expected to terminate it in less than one. I did not use chloroform or chloral or the hot douche, all valuable agents for overcoming rigid os, because there was at no time in the conduct of the case any emergency calling for immediate delivery; the Barnes bag controlled effectually any outward flow, while it was believed, as explained above, that the womb, filled with its contents, would be a bar to any serious internal hæmorrhage. Moreover, from having used these agents (chloroform and chloral) quite frequently in normal labors, in the earlier years of my practice, I have grown to fear them as excitors of uterine inertia, and of consequent post-partum hæmorrhage.

Case 2.—Was called on the night of January 7th, 1886, in consultation and to aid in the delivery of Mrs. P., aged 34, the mother of five children, and of good general health. From having experienced repeated ante-partum hæmorrhages for three or four weeks preceding her delivery, her physician suspected her to be the subject of placenta prævia. Drs. Porter and Price were also in attendance. I found on palpation that it was a cross-birth, and on examination, that the os was partially dilated and dilatable, and that the placenta presented centrally as nearly as I could determine. Hæmorrhage had been, and was quite free, responding to each uterine contraction. Her face was blanched, and her pulse was rapid and weak. The os was not sufficiently dilated to proceed immediately with version, so the largest size of Barnes' bags was easily introduced, and steady pressure kept up by means of the syringe. Dilatation was quickly accomplished sufficiently to admit the hand, and the operation of turning was undertaken. But now an embarrassing and unique cause of delay was encountered. The bag of water was found to be not at all tense, but yielding readily to any movement of the fingers, and the membranes themselves were so dense and tough as to render futile every effort to grasp the feet of the child that I could feel under my hand. Thus several minutes were lost, during which blood from the denuded uterine surface was flowing freely.

After a delay that seemed longer than it really was, I succeeded in bringing down the feet and delivering the body of the child

which was then alive. But another untoward delay occurred before effecting complete delivery ; the neck of the uterus grasped firmly the arms and neck of the child, and before they could be disengaged the life of the child was sacrificed. The placenta was, in this case also, found to be adherent, and had to be stripped off from its attachment, which was done at once, but the womb contracting well, no great amount of blood was lost, which was most fortunate, for the loss she had already sustained before and during delivery was so great that it did not seem possible for her to lose any more without fatal results. Her convalescence was preceded by some fever and femoral phlebitis, but as a whole it was satisfactory, and she is now in the enjoyment of good health.

COMMENTS.

In this case the only point of unusual interest, aside from the great loss of blood she underwent, both before and at the time of delivery, was the unexpected delay in effecting version, owing to the toughness of the membranes. Several minutes were lost by this accident, during which she was losing blood freely, and which, from losses previously sustained, she could ill afford. Again, after the body of the child was delivered, and it (the child) was known to be alive, it was most distressing that the arms and neck of the child were so tightly grasped by the spasmodically contracted os that delivery could not be effected in time to save it. It should be noted that the delay was occasioned, not as usually happens in footling cases, by the rigidity of the soft parts impeding the head in its passage through the inferior strait, but by the constriction of the os. In the case of Mrs. B., presently to be related, the same thing occurred, but as the child was known to be dead, it occasioned no anxiety. In her case (Mrs. B.'s) the efforts to extract the child brought the constricting os so low down in the vagina that by separating the lips of the vulva the purple constricting os could be seen, looking and feeling like a dense rubber band, tightly embracing the neck of the child. I deemed it of so much interest that I called Dr. Price, who was giving chloroform, to see it.

Case 3.—Mrs. B., aged about 33 or 34 ; mother of eight children by two husbands, four living and four still-born ; appearance cachectic and badly nourished. Was called to see her at 12 M. on April 6th, 1886, for the first time ; was told by her husband that

she was expecting to be confined, but was not then actually in labor, and that she had lost that morning a large quantity of blood, and that she had sustained like (but not so great) hæmorrhages several times within the past month or six weeks. On examination I found the os patulous, and I could introduce my finger sufficiently to determine that the placenta was presenting centrally. I made out at the same time, by palpation, that the presentation of the child was that of a shoulder. I saw from her appearance that she had lost a great deal of blood, and I had no doubt of the urgent propriety of inducing labor at once; but not being apprised of the nature of the case, I was unprepared for operating then, but made an appointment for 5 o'clock P. M. of that day, notifying Dr. Price at the same time and requesting his aid. Presenting ourselves at the appointed hour, I found the woman had experienced another and more alarming hæmorrhage from which she was perfectly prostrated. Her appearance was ghastly, and so much was she reduced that I had but the faintest hope of bringing her through, and so informed her husband. Finding, on examination, that the os was dilated and the tissues thoroughly relaxed, I deemed it unwise to waste time with artificial dilators, so, introducing my hand in the vagina, and using my contracted fingers as a wedge, I succeeded by gentle but firm pressure in insinuating my hand through the cervix into the cavity of the uterus, when, grasping the feet of the child without difficulty or delay, delivery of the body was rapidly effected, and, after some delay with the head, as noted in comments on case second, delivery was accomplished. The child was dead and had been, I thought, for several hours. The placenta was adherent in this case also; it was stripped off from the wall of the uterus by the fingers, without the loss of very much blood—firm and continuous contractions soon set in, and we were thankful that there still was some life left to go on. Her pulse at this juncture was thready and very rapid, her respirations sighing and frequent. Restoratives and stimulants were at once resorted to, and, after making such necessary changes in her clothing and position as were imperative, and without raising her from a horizontal position, a small dose of morphine was given, and we left for the night. It is unnecessary to pursue the details of treatment; suffice it to say that in a day or two after delivery she had a chill followed by high fever, but without tenderness over the

womb or other indications of metritis or peritonitis. As she had long lived on the canal and was subject to malarial influences, the fever was thought to be an expression of malaria and was treated with quinine with the result of getting it quickly under control. But during the night of the third or fourth day she was taken with violent flooding, and on my visit the next day I found her in a very critical condition. I explained this unlooked-for bleeding by supposing that a portion of the placenta had been inadvertently left at the time of delivery, and this hæmorrhage was due to its separation, but as the clothes on which the discharge occurred had been removed and washed, I could not verify my supposition.

She again rallied from this loss of blood, and was doing fairly well when she was again, several days afterwards, prostrated by a fresh outbreak of bleeding that was alarming in one of her prostrated condition; but she rallied again and was progressing, as I believed, towards a rapid convalescence, when, on the twelfth day after her delivery, she was again seized with a hæmorrhage, from which she never recovered. Fortunately for purposes of diagnosis, I reached the house a few moments after its occurrence, and before she had been disturbed. On examination, I removed from the vagina and the patulous os a double handful of clotted blood, besides what had escaped on the clothing; I examined these critically, and am sure there was no piece of placenta or membrane in it—there was nothing but blood. I administered ergot and brandy at once and continued to do so at intervals of three or four hours until the next day. She never rallied after this; she became partially comatose, and died on the 24th of failure of the heart, eighteen days after delivery.

COMMENTS.

This was a most unpromising case to begin with. The mother of four living and four dead children, and she seemingly not over 33 or 34 years of age. She was badly nourished, and was cachectic in appearance from having lived all her life under malarial influences. She had received no medical attention up to the day of her delivery, although from her appearance sorely in need of it, and her condition of peril was not suspected. Had I not carefully examined the blood and clots that escaped at the time of her last and fatal hæmorrhage, I would still be disposed to believe that they (the

hæmorrhages) were caused by successive detachments of pieces of placenta ; but the last was certainly not so caused—I am confident the second was not so caused—and I very much doubt if it was the cause of the first. I have no explanation to give of it. That such unaccountable hæmorrhages do sometimes occur, however, is shown by the discussion elicited by a paper read before the Baltimore Gynæcological Society by Dr. P. C. Williams,* in which several instances are given of such hæmorrhages. The case stated by Dr. L. E. Neale was of special interest, as showing how a healthy primipara thus lost her life on the ninth day after delivery. In January of this year I also had a case where a lady was overtaken with free hæmorrhage twelve or fourteen days after her confinement—after she was up and going about. In this case the labor was normal in every particular, and the convalescence uninterrupted, nor was the hæmorrhage at all profuse or continuous ; the point of interest is that it should have occurred at all.

I have long since made up my mind that the administration of chloroform in labor predisposes to post-partum hæmorrhage, and have in consequence abandoned its use except in cases where it is clearly indicated—as the passage of the head over the perineum in nervous primiparæ, manual or instrumental delivery, eclampsin, etc. But it is difficult to believe that chloroform used in delivery could extend its influence over twenty-four hours, much less over a period of twelve days. One other possible explanation offers itself : I have occasionally met with women who could not take quinine just before their menstrual periods for fear of becoming profusely unwell. One such instance especially occurs to me in a mulatto woman aged about 40 years, who could not be induced to take quinine at such times, for if she did her menstrual period became a real hæmorrhage of arterial blood. I have personally verified her statement with regard to it. Now, the case under consideration (Mrs. B.) was given quinine freely for several days after her confinement. Could the drug have produced the hæmorrhage? I think not ; for its administration was stopped long before the last flow, and she was not taking it at the time of the second, although she was when she had her first bleeding. Moreover, when I formerly practised medicine in a very malarious region, it was my

*Published in *Maryland Medical Journal* May 1st, 1886.

custom to administer quinine for a week or ten days preceding their delivery to those who expected to be confined during the early autumn months, and to continue its use for a week after that event. This I did to ward off an attack of malarial metritis that experience taught us to confidently expect in those who were confined during the season when malaria was most active and pernicious in its influence. Yet I do not remember ever to have had a post-partum hæmorrhage that I could attribute to the practise.

These cases, viewed collectively, offer two points of interest: First, it is to be observed that in all the cases the placenta were adherent. Whether this was merely a coincidence, or whether it is the rule in placenta prævia, I have no means of ascertaining.

The second point of interest is, that in the two cases where the children had reached maturity, the shoulder presented; while in the case of six months gestation the head presented. Now, I think there is a cause for this, whatever statistics may teach on the subject. When the placenta is centrally implanted over the cervix the long axis of the uterus is so encroached upon that it cannot accommodate the long axis of the child, and the head is thrown to one side or the other, causing a cross-birth; likewise it would be reasonable to infer that this mal-position of the fœtus would not take place until it (the fœtus) had reached such length by growth and development as to no longer find accommodation in the abnormally shortened long axis of the womb. Hence the occurrence of shoulder presentations in the two cases that had arrived at full term—the children being full grown—and of a head presentation in the one of six months gestation where the fœtus was only eleven inches in length.

A NOVEL METHOD OF BLEEDING.—In a case of a woman suffering from very evident overloading of the vascular system, but whose friends objected strenuously to venesection, Dr. Coppinger resorted to aspiration of the jugular vein. The patient had been accustomed to receive hypodermic injections, and made no objection to the introduction of the needle of the aspirator. A sufficient quantity of blood was abstracted in this way, and the patient's urgent symptoms were relieved.—*Medical Record*.

MINUTES
—OF THE—
THIRTY-THIRD ANNUAL SESSION
—OF THE—
Medical Society of North Carolina.

FIRST DAY—MORNING SESSION.

NEW BERN, N. C., May 19th, 1886.

The thirty-third annual meeting of the Medical Society of the State of North Carolina met in the new Court House in New Bern on the 19th day of May, 1886.

The meeting was called to order by the President, Joseph Graham, M.D., of Charlotte.

Dr. J. B. Hughes, chairman of the Committee of Arrangements, introduced Rev. L. W. Crawford, of the M. E. Church, South, who opened the meeting with an appropriate prayer.

Dr. Hughes then introduced Hon. C. C. Clark, of New Bern, who delivered the address of welcome, as follows :

Mr. President and Gentlemen of the State Medical Society of North Carolina:

It has been made my pleasing duty, through a kind partiality which I fondly prize, to extend to you, in the name of the whole people of New Bern, a most cordial welcome to their generous kindnesses and unstinted hospitality. We feel honored by your presence, and most humbly invoke Heaven's blessing on your deliberations.

When I recur, Mr. President, to your ancient origin, and trace all along down through the ages, in wars, famine, pestilence, disease, devastations and death, your heroic and self-sacrificing efforts, con-

stantly and perseveringly put forth, to lift humanity up above humanity's infirmities, I realize a holiness and tenderness of relationship, drawing us nearer and nearer together, which purifies the heart of the least taint of hypocrisy and deceit, and emphasizes, with the profoundest sincerity and truth, the earnest greeting: Welcome! thrice welcome! distinguished representatives of the most honorable fraternity, which was born in philanthropy and baptized in patriotism.

We live, Mr. President, in what is vaingloriously termed an eminently practical age—an expression to which I will, under the inspiration of this interesting occasion, give an accurate and comprehensive interpretation, thus: an age in which every talent, every energy, every sensibility, every attainment must be so subordinated to the accumulation of wealth, that the muscle which digs up the money may be much more honored than the brain which ennobles and blesses mankind. It is capital that leads society; it is capital that dominates legislation; it is capital that shackles and controls the intellect; it is capital that deadens moral sensibility; it is capital that stifles religious truth; it is capital that makes the politician a scamp; it is capital that debases the statesman into the demagogue; it is capital that oft circumscribes the influence of the pulpit, detracts from its mighty power and obscures its holy prerogative; it is capital that is prostituting the profession of law, until it is fast degenerating into the trickiest of trades; and it is capital that is everywhere seeking to put its yoke on the necks of the people, that all may be forced to bow, in abject submission, to the golden calf, and acknowledge money to be the only true god.

Humbled and appalled, Mr. President, by these startling developments of this closing era of the nineteenth century, with all its boasted paraphernalia of science and learning, how refreshing it is to refer to your great founder and his noble conduct, when, with his big heart beating with the loftiest aspirations and fully responsive to the needs of the people and the claims of patriotism, he disseminated, without price, his constantly increasing knowledge of the curative art, and sanctified his whole life by an unreserved dedication of his powers and his service to the honor and glory of his own beloved native land. He lived a century, less one year, having had his sublime integrity and benevolence rewarded by a kind Providence with a long life, that he might fully illustrate the aims

and purposes of his noble profession, and exemplify, "as its Homer," the true poetry of human life and human effort. When dead he was crowned "*Divine and Great*," as the benefactor of his race, and a splendid specimen of lofty, genuine manhood, mitigating human woes, alleviating human distresses and fulfilling human destiny.

And to-day, Mr. President, after the lapse of more than two thousand years, with their tremendous record of revolutions, moral, social, political and intellectual; of numberless overturnings and numberless upbuildings, of darkest crimes and brightest virtues; I eagerly seize the opportunity to felicitate you that you have been, and are still, loyal to the genius of a great, beneficent and illustrious example.

Dame Nature herself, for obvious reasons, Mr. President, incited the expression of the poetical sentiment, "that the incidental beauties which the meridian sun exhibits are much fewer than those of the rising sun." But yet, Mr. President, when the day-king "rides high at noon," and his rays fall perpendicularly on the grateful earth, shades and shadows disappear, and light beams everywhere, blessing everything. So, Mr. President, the sun of your profession, from increasing attainment, advancing knowledge, just and benignant legislation, the cultivation of a proper *esprit de corps*, the wise, judicious, consecrated work of associated effort, has been rising higher and higher, under the brilliant impulse of its earliest morn, until it seems now to be almost reaching its meridian splendor, with the shade of darkness almost gone, and the glorious light shedding its healing effects, in the fullest fruition, in almost every nook and corner, where humanity can suffer and humanity may be blessed.

And still full, Mr. President, of the same philanthropic sensibility; still inspired with the same patriotic devotion; still ardent, persistent and unselfish in the pursuit of knowledge; still the patient explorers of the abstruse fields of science; still the unfeigned, wise and intelligent lovers of humanity, you have, by your gentlemanly deportment, your chaste and courteous relations, your disinterested service, your suavity and urbaneness of manners, your mildness and gentleness of speech, your benevolent visitations, your dexterous skill in protecting health, in conquering pain and in snatching life from the jaws of the grim monster, rendered your-

selves and your profession worthy of all honor and emulation, and I would that all stood on the same immutable foundation of truth, dignity and manhood.

This, Mr. President, is no fulsome eulogy. You deserve it every whit. And when I cast my eyes back to the ancient renown of this historic city, to the brilliant coruscations of its still more brilliant geniuses, its heroes, its statesmen, its orators, its philanthropists, its godlike women, who are indeed and in truth the source of all true greatness, and remember that we are, to-day, the sons and daughters of such a noble ancestry, I feel under the influence of the kindling emotion that I but voice the unanimous sentiment of those I represent, when, in grateful appreciation of the truths I have uttered, I again, on their behalf, extend to you the welcome of the heart to the domesticity of our firesides, the hospitable provisions of our homes, and bid you God-speed in the prosecution of your noble work.

Carlyle, Mr. President, who was peculiar in his originality and quiet in his greatness, has said : "The latest gospel in the world is : Know thy work, and do it." How replete with wisdom, how abundant in philosophy !

You, Mr. President, and gentlemen of the Society, are about to engage in your work ; and while I would not essay, ignorant as I am of the rational processes of your technical action, and the maxims and scientific appliances which conduct you to wholesome conclusions, to obtrude myself into the domain of your research, or even venture to proffer one word of counsel, yet will you pardon me for making just one modest suggestion, seemingly wise and so very appropriate to every stage of your professional labor? You are, doubtless, thoroughly conversant with the broad field of your work, and its urgent demands on your benevolence, patience, wisdom and learning ; yet, Mr. President, when clouds obscure your pathway, when apprehensions arouse your timidity, when intricacies puzzle your intellect, when novelty would fold up the wings of your aspiring genius, remember this, that as the very embodiment of eloquence ascribed the success of the heaven-born art of action ! action ! so with you ; all progress and every victorious achievement must depend on action ! action ! action ! For pursuant to the divine economy, and, in accordance with the limited attributes of the human intellect, "Doubt of whatever kind is ended

by action, and action alone." Not to solve the doubt is to wrap the black mantle of ignorance around you, and ignobly submit to the tyranny of your deadliest foe. Doubt, Mr. President, must always be the manacled captive that sheds the greatest lustre on your triumphant brain.

One word more, Mr. President, by your kind indulgence, and I have done.

No polished historian's facile pen may ever record your grandest deeds of patience, courage, skill and beneficence; no monument of brass or stone may ever rear its lowering column to perpetuate the memory of your most exalted virtues. No painter's brush, with beauty's touch, may ever delineate, on the speaking canvass, the noblest acts of moral heroism which may bedeck your lives. All these may be the flattering heritage of poets, orators, statesmen, military chieftains, whose deeds, born of the earth, receive from the earth their glittering rewards. Yet, Mr. President and gentlemen of the Society, as you wearily trudge along day by day, and night after night, strewing here and there and everywhere your flowers of consolation, which bloom as well beneath cold winter's stars as in the genial summer's sun, I conjure you to recall, in your sublime renunciation of this world's bright but fading honors, the most exquisite lines which were ever embellished by the divinest touches of the poets most royal fancy :

" Full many a gem of purest ray serene,
The dark, unfathomed caves of ocean bear;
Full many a flower is born to blush unseen
And waste its sweetness on the desert air."

And then remember, Mr. President, that this is true only *here*, not so *yonder*, "just over the river," where the Great Physician dwells, to whose healing tenderness and love I finally commend you.

God bless you, Mr. President, one and all, and fully develop the plenary capabilities of your profession for alleviating the woes and distress of fallen man.

President Graham's response to the address of welcome was a neat and beautiful expression of the appreciation of the members of the Society for the kindnesses which had been extended them. He spoke of the high position which New Bern held among the cities of North Carolina, and deemed it eminently fitting that the

Society should have come among so loyal a class of citizens. The heart of every North Carolinian is filled with pride whenever they mention the name of Gaston, or of Spaight, or of Hawks, or of a host of other illustrious men. The Church, the Bar and the Medical Profession are all alike proud to claim among their brightest lights citizens of your city. During all the meeting the Society would sit with open doors, and would be glad to welcome any of the citizens who would take any interest in the proceedings.

On motion of Dr. Satchwell, the thanks of the Society were tendered Mr. Clark for his address of welcome, and he was requested to furnish a copy for publication.

When the roll was called the following gentlemen answered to their names:

Drs. B. P. Alston, Willis Alston, W. W. K. Anders, L. M. Archey, H. T. Bahnson, J. H. Baird, Julian M. Baker, A. J. Battle, W. J. H. Bellamy, W. L. Best, Patrick Booth, S. D. Booth, Walter Brodie, F. Broyles, D. G. Caldwell, A. G. Carr, Leroy Chappell, W. T. Cheatham, J. I. Coleman, W. J. Cook, Charles Duffy, Jr., Francis Duffy, James B. Dunn, C. W. Eagles, G. C. Edwards, John M. Emmett, W. T. Ennett, John M. Faison, H. B. Ferguson, W. G. Freeman, M. H. Futrell, J. B. Gaither, W. C. Galloway, G. W. Graham, Joseph Graham, T. D. Haigh, J. M. Hayes, W. D. Hilliard, James M. Hodges, E. H. Hornaday, F. W. Hughes, J. B. Hughes, M. C. Hunter, J. W. Jones, W. J. Jones, Thomas M. Jordan, W. P. Kenedy, George L. Kirby, A. W. Knox, A. M. Lee, R. H. Lewis, George W. Long, J. F. Long, John McDonald, D. B. McNeill, J. W. McNeill, G. E. Matthews, C. A. Meisenheimer, P. L. Murphy, W. C. Murphy, J. L. Nicholson, J. T. Nicholson, S. T. Nicholson, Charles J. O'Hagan, A. D. Pair, R. L. Payne, Jr., L. J. Picôt, A. B. Pierce, N. J. Pittman, C. M. Poole, Elisha Porter, J. A. Reagan, W. E. Richardson, J. D. Roberts, G. J. Robinson, S. H. Rogers, F. M. Roundtree, S. S. Satchwell, J. F. Shubrick, G. G. Smith, R. T. Spencer, John A. Stevens, S. W. Stevenson, N. H. Street, J. J. Summerell, J. N. Taylor, George G. Thomas, Henry Tull, W. E. Turlington, Thos. S. Vickers, W. H. Whitehead, W. C. Whitfield, W. H. Wilson, W. R. Wood, R. S. Young.

When the name of Dr. Thomas F. Wood was reached, Dr. George G. Thomas rose and explained that the absence of Dr. Wood was caused by a serious sickness.

Dr. Picôt, in well chosen remarks, voiced the sentiment of all present in his expressions of deep regret at the absence of Dr. Wood and sympathy for him in his sickness, saying that the Society would feel his absence more than that of any other member. He moved that a committee of three be appointed to draft resolutions of sympathy and regret to be telegraphed to Dr. Wood. The motion was carried unanimously, and the chair appointed on said committee Drs. Picôt, Charles J. O'Hagan and George G. Thomas.

The chair announced the following committees:

Finance—Drs. T. D. Haigh, S. W. Stevenson and E. H. Hornaday.

Credentials—Drs. Charles Duffy, A. G. Carr and G. G. Smith.

The President's Message was postponed until a later hour by request.

Dr. S. D. Booth asked that his resolution relative to the localization of the Society at Raleigh and the establishment of a library and museum in the Capital, which was offered at the last meeting of the Society, be brought up for action. He read from the Transactions of 1885:

Resolved, That all regular meetings of the Medical Association of North Carolina be held in the city of Raleigh.

Resolved, That a tax of \$1 *per capita* be levied upon the members of this Society, which shall be collected each year in addition to the regular dues, and the amount so raised shall be set apart as a sinking fund.

Resolved, That the said fund shall be put into the hands of a committee which shall be selected for that purpose, and this committee shall so invest or lend the money so raised as will continually draw a good interest.

Resolved, That when a sufficient sum shall have been raised that this Association direct such a building to be erected in the city of Raleigh as will be a suitable depository for interesting and useful articles pertaining to medicine and surgery, and that the museum and library shall always be under the immediate direction of the officers of the Medical Association.

Dr. Picôt offered to amend by striking out the first proposition, that all regular meetings of the Society be held in Raleigh, which was seconded by Dr. A. B. Pierce.

Dr. A. G. Carr would like to have it read Durham instead of Raleigh, but his motion to that effect did not meet with a second.

Dr. Booth said that all the opposition which the resolution met with at the last meeting sprung out of the first clause, which Dr. Picôt's amendment would strike out. He knew of a number of valuable specimens being annually lost which could be placed away

and made a source of instruction and do great good to the members of the profession. We need a place to take care of these specimens, and every medical society ought to have a library; when a member stumbles upon an interesting case which he wishes to report and wants to go back and hunt up statistics, there are few who have a library to which he can refer. Raleigh is in the centre of the State, a convenient place of meeting, and he thought although it was interesting to change the meetings from place to place, the Society is not what it would be if the sessions were held at the same place each year.

Dr. O'Hagan thought it involved two propositions, one of which has been discussed in this Association for a long time—that of having a permanent place of meeting for this Society. There is not one single phase in which the question can be presented to the minds of the members in which it has not been presented before, and he believed a large and overwhelming majority of the members present have disapproved of it. It has been the opinion of those among us who are considered wisest that to localize the meetings of this Society would seriously impair its usefulness. The example of other scientific bodies, not only in the United States, but throughout Europe, has been adduced time and time again to prove that it does not add to the efficiency of such bodies to localize them. He thought the idea of forming a nucleus for the founding of a library and museum a good one, but doubted if any of those present will live to reap the benefits of such an institution in this State.

Dr. Booth accepted Dr. Picöt's amendment, and the resolution was read as amended.

Dr. Haigh offered an amendment inserting in the last clause after the word Raleigh "or such other place as may be determined by the Society."

Dr. George W. Graham offered to amend by striking out the word Raleigh and leaving the name of the place blank, which amendment Dr. Booth accepted.

Dr. Summerell thought the whole project impracticable at present. Unless the Society is localized and the meetings held at the same place in which the library is situated the members have no opportunity of consulting the library, even once each year, except by a special visit.

On motion of Dr. Pierce, the resolution was laid upon the table. The chair appointed on the Auditing Committee Drs. Rountree, Bahnson and Summerell.

Vice President Picôt being called to the chair, the President, Dr. Joseph Graham read his Message. (See Appendix.)

It was voted that the thanks of the Society be tendered the President for his very able address, and that a committee be appointed to embody his suggestions in a report to be presented to the Society for action.

Dr. R. H. Lewis said it was very important to make a statement regarding a resolution made by him at the last meeting making the Nominating Committee consist of nine members, to be appointed one from each judicial district. He said when he offered the resolution he intended it to lay over twelve months, and it should have done so, as it involved a change in the Constitution. His object in offering the resolution was that, as there were sometimes complaints heard that the President was invested with too much power, in that he appointed the Nominating Committee he could practically name the officers for the next year, those members making these complaints might have an opportunity to speak on the subject and make their grievances known to the Society, or if they failed to avail themselves of the opportunity, that no further insinuations of bad faith in office should be made. He thought, however, there must be an error somewhere, as the resolution is only eligible for action at this meeting. Individually he is opposed to the resolution. He thought the present arrangement preferable, and as he said before, his object in introducing it was that the members might discuss it.

The Secretary read from the minutes of the last meeting showing that the resolution was acted upon at that meeting on the ground of its being an amendment to a resolution introduced by Dr. Faison at the meeting previous.

On motion of Dr. Pierce, it was voted, in consideration of the action of the last meeting having been premature, Dr. Lewis' resolution having nothing whatever to do with that offered by Dr. Faison, that the transactions of the Durham meeting be corrected by leaving out the part relating to the adoption of Dr. Lewis' resolution. The resolution then being before the house for action, Dr. Lewis withdrew it.

The President announced that he had received an invitation from

the President of the A. & N. C. R. R. Co. for the Society to take an excursion to Morehead City.

On motion, a committee was appointed to consider the matter, and, if feasible, accept the proffered courtesy.

Dr. Haigh offered the report of the Finance Committee. (See Appendix.)

The report of the Committee on Credentials made at this point was temporarily withdrawn at the instance of Dr. R. H. Lewis, because it appeared that there were among the names of licentiates from the Board of Examiners, included in the report, that of a colored graduate. It was neither the intention of the Society to admit the colored licentiates to membership, nor had they expressed any disposition to seek this affiliation. When the name was withdrawn the report of the Committee was read, as follows :

D. B. Zollicoffer, Garysburg ; Julius Alex. Faison, Mt. Olive ; E. H. Bobbitt, Palmer Springs ; E. Rose Dorsett, Salisbury ; U. S. Hassell, Jamesville ; G. H. Dodd, Clayton ; James L. Maury, Beaufort ; H. E. Jackson, Pittsboro ; B. S. Utley, Holly Springs ; S. P. Sparrow, Sladesville ; Edward Clark, Middleton ; Frederick A. Whitaker, Trenton ; Christopher J. Mattocks, Pollocksville ; R. W. Thomas, Durham ; Eugene M. Littlejohn, Thomasville ; A. W. Hamen, Laurinburg ; Charles Duffy, Sr., Catharine Lake ; Jas. M. Boyette, Little River Academy ; James H. Powell, Castonia ; A. L. Petner, Winston ; Starke Hassell, Tyrrell county ; James Rufus Rogers, Wake county ; John L. Moore, Halifax county ; Thomas J. Phillips, Dalton ; George W. Kernodle, Alamance county ; Jos. J. L. McCullers, Raleigh ; Frederick F. Ford, Catawba county.

Adjourned to 4 o'clock P. M.

FIRST DAY—AFTERNOON SESSION.

The meeting was called to order at 4 o'clock.

Dr. O'Hag anrequested the reading of Dr. Lewis' resolution offered at the Durham meeting and acted on at this morning's session. During the discussion that followed Dr. W. J. Jones offered an amendment, as follows : That the President be authorized to appoint nine members instead of five on the Nominating Committee, and that the majority of the nine selected elect the President

for the succeeding year, and this nine be selected one from each congressional district, and where a district was not represented that a second be appointed from the district having the largest representation. After considerable discussion *pro* and *con*, on motion of Dr. O'Hagan, the whole matter was laid upon the table by a vote of 25 to 17.

The resolution offered by Dr. Booth at the last meeting looking to the establishment of a medical department at the State University was read, and Dr. William R. Wood, a member of the committee appointed to consider the matter, suggested, in the absence of Dr. Thomas F. Wood, some other member be appointed to take his place. On motion of Dr. A. G. Carr, Dr. W. T. Ennett was appointed.

The committee appointed to consider the invitation extended the Society by the President of the A. & N. C. R. R. Co. made the following report :

"Your committee beg leave to report that they recommend that we accept the invitation of President Bryant to visit Morehead City, and that we hold a morning session from 9 A. M. to 1 P. M. to-morrow, leaving the depot at 2:15 P. M. *sharp*, returning by 7:30 o'clock P. M.

"Respectfully submitted,

"J. D. ROBERTS,

"S. S. SATCHWELL,

"C. M. POOLE."

A discussion followed which was participated in by several members, the general drift being that while the Society appreciated the courtesy of the President of the A. & N. C. R. R. Co., the work to be done would not permit the acceptance of the invitation.

Dr. J. W. Jones said the conjoint session with the Board of Health was appointed for to-morrow, and he considered that one of the most important things of the whole meeting, and an excursion to-morrow would very materially interfere with the important work to be done.

Dr. Lewis moved that "on account of the kind hospitalities already extended us by the citizens of New Bern, the acceptance of any other invitations would so interfere with the business that we will have to decline the invitation," which was adopted.

Under the head of new business Dr. Satchwell presented a paper by title, which was referred to the Committee on Publication.

Dr. Cheatham read a paper on "A Case of Opium Poisoning." (See Appendix.)

On motion of Dr. Booth, it was referred to the Publication Committee.

Dr. George G. Thomas presented the report of the Board of Censors, and asked the views of the members on the following question: "Can a practitioner of general medicine advertise his readiness to do a gynæcological practice unless he relinquishes his general practice and limits it to the branch he wishes to follow?" He said the gentleman who asked the question said he did not wish to do anything contrary to the Code of Ethics. He told him the Board was of the opinion that inasmuch as gynæcological practice was necessary to every practicing physician, it could hardly be called a specialty in North Carolina, and in the light of such a fact existing they did not think it was allowable for him to advertise.

Dr. R. H. Lewis said when he began practice as a specialist he made some inquiries so as to be strictly within the law. He understands the law to say that a man can advertise if his business is restricted entirely to the practice of any one branch. He cannot do a general practice and claim that he is a specialist of any sort.

Dr. George W. Graham said he had occasion at one time to look into this question, and consulted Dr. N. S. Davis, who held that a man could not advertise any branch unless he restricted his practice to that branch.

Dr. O'Hagan said in reference to the question asked by Dr. Thomas he thinks Dr. Graham's remarks cover the case entirely, and, according to the views of Dr. Davis, the gentleman should not be allowed the privilege. A general practitioner who advertises a specialty intimates a superiority over his neighbors, and he thinks the sense of the meeting is that he should not be allowed to do it.

Dr. Thomas, in continuation of his report, read the following correspondence:

"TARBORO', N. C., April 2, 1886.

"DR. G. G. THOMAS, Wilmington, N. C.:

"*Dear Doctor*:—I enclose a placard sent me a short while ago.

As a member of the Board of Censors I think you the proper one to have charge of it.

"Yours, very truly,

"JULIAN M. BAKER, Secretary."

"DR. OSCAR GREGORY

"Obtained distinction in Medicine at the University of Virginia in the year 1853. Graduated from the Jefferson Medical College, Philadelphia, 1854. Member of State Medical Society of North Carolina. Ex-Vice-President Medical Society Halifax county, North Carolina. Through appointment of Gen. Magruder, made by request of Col. Thomas F. Goode, Surgeon of Third Virginia Cavalry part of the late war, and in army of Northern Virginia during the entire war. After an active practice of nearly thirty-two years he offers, the services of his profession, in all its branches, to the people of Oxford and surrounding country. Having always enjoyed a liberal patronage from every community in which he has lived, he is encouraged to hope for the same in Oxford, where he has determined to make his permanent home. Charges will be the same as those of the physicians of Oxford. He also claims to possess that charity for which his profession has always been so justly distinguished. Can be found in his office over Lassiter & King's Drug Store, or at residence on College street, sign of the red post."

"WILMINGTON, N. C., May 7, 1886.

"DR. OSCAR GREGORY, Oxford, N. C. :

"*Dear Sir*:- The Board of Censors of the Medical Society of North Carolina are in possession of a hand-bill issued by you at Oxford. As the character of this circular is inconsistent with a just construction of Section 1, Article 2, Code of Ethics, under general heading, "Of the duties of physicians to each other and the profession at large," we feel compelled to report the whole matter to the Society at its approaching meeting in New Bern. We ask, therefore, to call your attention to the Section of the Code above referred to, and to inform you of the intended action of the Board, in order that you may present to the Society any explanation you may see fit. If you so elect, we will be pleased to offer your communication to the Society, unless you intend to be present in person. It is due you that you know, we are inclined to believe your error in this matter one of oversight, but the violation of the written

law cannot go unnoticed, even though the breach be slight; for to overlook this fault may lead others to commit greater wrongs, and in extenuation plead your case as having been passed over without notice or censure. We hope to hear from you at your convenience.

" Respectfully,

" GEO. GILLET T THOMAS,

" W. J. LOVE,

" WM. W. LANE.

" Board of Censors."

" OXFORD, N. C., May 10, 1886.

" *Board of Censors Medical Society of North Carolina:*

" GENTLEMEN:—Your communication of the 7th inst. has been received. I thank you for the opportunity given me for explanation. I had not read the Code in sometime before the circulation of the advertisement to which I suppose you refer. But, after a careful perusal of the section mentioned, I fail now to perceive how the freest rendering of it prohibits a doctor from placing before a new community his proper credentials as a physician. I conceive, if this is not his privilege, he has no right to ask the patronage of that public. If, however, you, as the Board of Censors, interpret it thus, I submit, and would be glad to have the specific infraction explained to me. I made no advertisement calling the attention of individuals affected with particular diseases, claimed no specialty, promised no radical cures, published no cases or operations in the public prints, said nothing derogatory to any physician, made it known that my charges would be the same as the physicians of Oxford, and have withheld certificates of character and merit now in my profession from physicians in Virginia. My sole motive was to make myself known at once as a physician of good standing. I know of no other way to do this than to tell the people where I graduated, what positions I had held in other places, and this appeared to me entirely honorable and legitimate. In fact, I submitted it to several of the leading doctors of Oxford, and they did not find it obnoxious. There was only one who did—a very young one.

" I am a man well on in years, and came recently from a section of country rendered almost bankrupt by several consecutive bad crops of cotton, made also objectionable by negro supremacy. I was attracted to this tobacco district by its prosperity and by the representation of a large surplus practice. Having a family of some size dependent on my practice, their necessities would hardly permit me to wait to build

up a new reputation, especially as this is entirely a rural district, where a card in the newspapers would be noticed by very few. I have ever been exceedingly jealous of my professional integrity, and careful to preserve (as I construe it) the spirit as well as the letter of the Code. For the establishment of my reputation in these things I can confidently refer you to all the physicians with whom I have practiced—among them Drs. A. B. Pierce, J. E. Green, Collins, Petway, O'Brien, Gee, of Halifax, from whence I have recently removed, and I dare say, though they did not practice in my immediate vicinity, Drs. W. R. Wood, Willis Alston and L. J. Picôt would give you assurance of the same.

" Hoping to hear from you soon, and submitting myself entirely to your decision

" I am, most respectfully, yours to command,

" O. GREGORY."

" WILMINGTON, N. C., May 16, 1886.

" DR. OSCAR GREGORY, Oxford, N. C. .

" *Dear Sir:*—In answer to your letter of the 10th, we beg leave to say there is a wide difference between a simple advertisement offering your professional services to a community in which you have determined to settle, and the utterance of a hand-bill of more or less modest autobiographical proportions.

" It will hardly be claimed necessary, we think, to offer to the intelligent and discriminating people of Granville county as a reason for expecting a share of their practice, that you are in possession of certificates of distinction from the medical school of the University of Virginia; that you hold a diploma from the University of Pennsylvania; that you were the recipient of the good offices of Col. Thomas Goode, and through his influence promoted to high rank as surgeon during the war, and that you were able to maintain your place and reputation; that always enjoying the patronage of the good people among whom you had lived and the confidence of your fellow-practitioners for thirty-two years, you would expect a continuance of this esteem in your new home; or that you would dispense a professional charity to worthy persons whenever they presented themselves. We deem all this entirely unnecessary, and really your own high character bears us out in this opinion. It is just the point we raised before, that you have erred through oversight, that seems to make it necessary now to say in plain terms, you have over-advertised, and that hand-bills

are not permissible under a just interpretation of the Code, especially in this day of newspapers, when a very simple advertisement ought to serve to announce you. You are very publicly advertising; you are in a measure offering advice to the poor gratis; that is the way we construe your claim to be as charitable as the professional man at large is supposed to be, and you are adducing certificates of success, at least in the references you make to positions of honor and trust you have held. Please understand, dear doctor, we are not administering any censure; for this is the prerogative of the Society. But we wish you to understand why we have arraigned you, and while we think you have violated the spirit and letter of the Code, we still believe you have committed this error unintentionally, because we accept most cheerfully your assertion of jealously caring for your professional integrity. Therefore, as we are in duty bound, we shall submit this whole matter to the Society, including the hand-bill and this correspondence, with the recommendation that these exhibits shall stand as censure enough, in view of your previous good record and estimable character.

"Yours, very respectfully,

"GEO. GILLETT THOMAS,

"WM. J. LOVE,

"WM. WALTER LANE."

Dr. O'Hagan asked Dr. Pierce to give the Society some information as to the position occupied by Dr. Gregory while practicing in Halifax.

Dr. Pierce said it had been his good fortune to be associated with Dr. Gregory for several years, and he always found him an honorable competitor, and he was sorry and felt grieved that he had committed this error, and he supposed he had done it unintentionally, and he did not believe that he thus committed an infringement of the ethics of the Medical Society of North Carolina.

Dr. Hays said he was the cause of this matter being brought before the Board of Censors. Dr. Gregory had these cards set up all over the town of Oxford. He did not say anything about it till Dr. Gregory presented one of them to a patient of his (H's), knowing at the time that it was Dr. Hays' patient. When he told Dr. Gregory that he was violating the spirit of the Code of Ethics, Dr. G. differed from him, so he thought it well to bring the matter before the Board of Censors. He thought, however, with the gentleman from Halifax,

that Dr. G. intends to do what is right, but that he is guilty of an error, and that if he acknowledges the error the matter might be dropped.

After hearing from several gentlemen the circumstances in the case which led to the committing of the error, on motion of Dr. George Graham, the report of the Board of Censors was received.

The Committee on Credentials made the following report, which, on motion, was received:

Drs. Thomas H. Leary, Edenton; Samuel C. McClure, Statesville; Hiram T. Chapin, Pittsboro', Lawrence B. Young, Rolesville, Wake county; Kenneth M. Clark, Kittrell's, Vance county; George Alex. Ramseur, Maiden, Catawba county; John P. Monroe, Durham Wm. H. Ward, Plymouth; Ivy G. Riddick, Raleigh.

The chair called for the report of the chairman of the section on surgery. The Secretary announced that Dr. Pritchard, the chairman of that section, was absent.

On motion of Dr. McDonald, the thanks of the Society were tendered the New Bern Firemen for their invitation for the members of the Society to witness their exhibition performance.

On the call for the report of the chairman of the section on Medical Jurisprudence, the new section established at the last meeting, Dr. J. D. Roberts, of Goldsboro', read an exhaustive and well prepared paper on the subject, bringing out many points of great importance and interest to the profession. Dr. Roberts said he had prepared notes on several other matters connected with insanity, but in writing them up found they would be too long to read, and so he cut out a portion of them. He would like, with the consent of the Society, to finish those notes and send them to the Publication Committee.

On motion it was voted that Dr. Roberts' paper, with his notes completed in full, be referred to the Committee on Publication, and that the thanks of the Society be tendered him for the pains he has taken in the preparation of his paper.

The Secretary offered a programme for to-morrow, which was adopted, when the meeting adjourned until to-morrow at 9 A. M.

SECOND DAY—MORNING SESSION.

The meeting was called to order at 9 o'clock A. M.

The President announced the following committees :

Obituary Committee—Charles J. O'Hagan, S. S. Satchwell, N. J. Pittman.

Committee on Nominations—Richard H. Lewis, R. S. Young, John McDonald, W. H. Whitehead, S. D. Booth.

Dr. Satchwell read a communication from Dr. Foote, expressing his regrets at his inability to be present at this meeting.

Dr. Wm. R. Wood said in regard to the University School that the majority of the committee seemed to be opposed to it, and the minority ask to make their report.

The President said it is customary to receive the majority report first, but as none of that part of the committee were present the minority were allowed to read their report, as follows :

Mr. President :—The committee appointed at the last session of this Convention to take into consideration the "advantages and feasibility" of establishing a Medical Department at the University of North Carolina, having given the matter the careful consideration and deliberate thought which they deem so important and far-reaching a subject merits and demands, have the honor to submit the following preamble and resolutions :

WHEREAS, The State of North Carolina has been stirred by the spirit of our time and by the demand of the people for better educational facilities, and has been steadily striving to furnish ample means for the best training that can be imparted in many branches of knowledge; and, whereas, no provision has hitherto been made for giving instruction in medicine, the noblest, and certainly one of the most important of the sciences, and but little has been done by the State to foster and elevate the profession in whose hands are the lives and health of the people; and, whereas, it will in our judgment be entirely practicable to establish in connection with the State University a Medical Department which shall give to students of medicine advantages equal to the best that can be given elsewhere, shall stimulate and elevate the profession, and so prove a blessing to the people, and prove to be an important step toward the complete intellectual development of the State; therefore

Resolved, That the establishment of a Medical Department in connection with the State University similar in character and design to the Medical Department of the University of Virginia, is a thing not only practicable, but on every account greatly to be desired.

Resolved, That a committee be appointed by this body to confer with the Trustees of the University of the State at their meeting, in reference to the establishment of such a department in that institution.

Resolved, That this committee be empowered to act conjointly with such committee as the Trustees of the University may think proper to appoint, for the purpose of bringing the subject matter of this report properly before the Legislature at its next session.

The President said no action could be taken until the majority report was heard, and it would have to lay on the table till that report came in. He thought their absence was due to a misunderstanding as to the time of meeting.

The Secretary read a communication from Dr. W. C. McDuffie regretting his inability to attend the meeting, and inviting the Society to meet in Fayetteville next year.

Dr. W. C. Murphy read the following :

"To the President and members of the Medical Society of North Carolina :

"Hearing that reports damaging to my personal and professional character were circulated at the last meeting of this Society in Durham, I respectfully ask that a committee of three physicians, members of this Society who reside in Pender county, be requested to procure and furnish to the Board of Censors any testimony bearing on said subject.

"Very respectfully,

"WALTER C. MURPHY."

Dr. Porter rose to make some remarks on it, but was ruled out of order by the President, who said he thought the communication of Dr. Murphy was going to take only a few moments, but if it were to be a matter for discussion it must come under the order of "New Business."

Dr. N. J. Pittman rose and said : "I propose to give a prize of \$100 to be known as 'The Pittman Prize,' for the best essay on scientific medicine—to be original matter. The highest standard of excellence will be required, the *non de plume* and the real name of the contributor to be enclosed to the proper officer, and, after due investigation, the prize will be awarded to the successful competitor. He must be a member of the Medical Society of North Carolina—his residence it is not necessary to designate or to mention. If I am alive the prize will be promptly paid : if not alive—and life is one of the uncertainties of this world—the draft will be honored and paid promptly. Now, gentlemen, see what has evolved out of this little nucleus of thirty odd years ago in Raleigh, the

capital of our State. Nine—sacred number! What a fine body of men, in pursuit of science, charity, benevolence and all that comes from the human heart! There are three of us alive. Dr. Satchwell and myself are the only ones present, I believe. I am interested still in medicine, though retiring from its active practice for several years, now engaged in other pursuits, I think this comes very appropriately from me, as one of the founders of the Society.”

Dr. O'Hagan said no doubt the Society had been deeply impressed with the kindly and generous feeling that had prompted our distinguished colleague to make the offer. Like the little nucleus which thirty years ago gathered together in Raleigh, it will be the beginning of greater things. He moved that the proposition of Dr. Pittman be received by this body, which motion was adopted by a rising vote.

The President called for the report of the committee on the establishment of a medical school in the University of North Carolina.

Dr. O'Hagan read the report of the committee, as follows :

“The undersigned, a portion of the committee appointed at the last meeting of the Society to report upon the resolution introduced by Dr. Wm. R. Wood, beg leave to respectfully offer the following report—that, in their opinion, there is no necessity for the addition of a Medical Department to the State University, and that at present the scheme is utterly impracticable. It is furthermore the opinion of the undersigned that neither the interests of the profession nor the public would be advanced by the establishment of such a department. In a word, that the interests of the profession and the public would be more enhanced by the support of a few good schools than by the establishment of many bad ones.

(“Signed)

“C. J. O'HAGAN,
“T. D. HAIGH,
“H. T. BAHNSON,
“J. GRAHAM.”

The matter was discussed at some length, Drs. O'Hagan, Pierce, McDonald, Roberts, Geo. W. Graham, Haigh and Bahnson opposing the measure, and Drs. W. R. Wood, A. G. Carr and Hays advocating it.

On motion the report of the committee was received.

The Committee on Credentials reported the names of Drs. Wm. H. Wood, Plymouth, and M. E. Robinson, Goldsboro'.

On motion of Dr. Bahnson, the gentlemen were invited to seats on the floor and to take part in the discussions.

Dr. Haigh extended the Society an invitation from the Cumberland Medical Society to meet next year in Fayetteville.

A motion to suspend the rules and accept the invitation was ruled out of order.

Dr. Ennett offered a resolution "That the thanks of the Society be tendered the President for his able and instructive address, and that a committee of three be appointed to embody the suggestions and recommendations of the President and present them to the Society.

The following committee was appointed: Drs. W. T. Ennett, Charles J. O'Hagan and R. H. Lewis.

Dr. O'Hagan, in introducing Drs. McGuire and Edwards, who were present as delegates to the Convention from the Virginia Medical Society, said: "Mr. President and gentlemen of the Society, when a Virginian sets his foot inside the lines of North Carolina he is always welcome. When a Virginia doctor, and especially such distinguished gentlemen as those whom I now have the honor of introducing to you, stands before us as the representative of the profession in his own State, he is doubly, trebly welcome. I deem it an honor not to be lightly valued that the State of Virginia in sending delegates to deliberate with us has sent us the best she had. Their reputation in the profession is known not only in this State and in their own, but throughout the United States and far beyond the seas. As the representative of the medical profession of the State of Virginia I take pleasure in introducing to you Drs. Hunter McGuire and Landon B. Edwards."

As Dr. McGuire arose he was greeted with rounds of applause, and then, in a short speech, told his embarrassment at the compliments which had been bestowed upon him, and expressed his appreciation of the hearty welcome which had been given him. He spoke of his acquaintance with, and admiration for, several North Carolina men—Ramseur, Hill, Grimes and others, and expressed his intention to enter, with the consent of the Society, into some of their discussions.

Dr. Edwards thought it scarcely necessary for him to be intro-

duced. He felt perfectly at home here, having visited this Society before. Then, to the amusement of those present, he stated the cause of Dr. McGuire's embarrassment—he had left his notes at his room.

The chair announced the following

Committee on Essayist—Drs. Rountree, Bahnson and Summerell.

Dr. George G. Thomas stated that two of the three members on the committee on prize essays were absent, and asked that some other gentlemen be appointed to act in their places. The chair appointed Drs. McDonald and Bahnson.

The next order of business was the reading of the annual essay, and the President, in calling for it, said it would be a matter for discussion, and he hoped the members would enter largely into the discussion.

Dr. R. S. Young, the regularly appointed essayist, then read an admirably prepared paper on "Artificial Alimentation," which was listened to with much interest by his large audience.

DISCUSSION.

The discussion was opened by Dr. Edwards, who said he had been very much pleased with the paper that had been read. He had long been of the opinion that we are making too much of a chemical laboratory of the stomach. We find chemists at work day after day inventing and discovering, as far as they can, agents capable of aiding solution and of assimilation. We should look at this thing from a practical standpoint—compare the human system to an engine, and remember that this is merely the fuel by which the engine is to be run. It is not necessary that we should always be studying and planning the kind of material to be used as fuel, but should seek such means of making that engine absorb and assimilate that fuel so as to produce the necessary steam. It is a demonstrable fact that patients cannot only be kept alive, but thrive for weeks upon food administered by the rectum. Dr. Robert Battey and following him others of like eminence had shown that injecta may be made to pass through the whole of the intestinal canal. He is satisfied that the great good to follow artificial alimentation was to secure rest for the stomach, when, from its morbid condition, it could no longer perform its functions. Then either the administration of food by the rectum or by the hypodermatic

method were valuable. He said that the introduction of food into the rectum must be done slowly and time be allowed the bowel to accustom itself to the new order of things—gradually increasing the amount to the full capacity of the bowel for accomplishing the new work set for it. He is satisfied of one thing in regard to this matter, that when we come to a case where we need stomach rest, we should let the stomach alone. And since we have other methods that are admirable, we will resort to those and let the stomach rest for the time being, by using the hypodermic method or else the rectal form, both of which have been so admirably done.

Dr. McGuire said ever since Dr. Battey, our celebrated Southern surgeon, demonstrated to the world the fact that you can inject a fluid through the rectum into the stomach (and it is a fact now well attested) rectal alimentation has become more and more important. Because, if that fact is true that you can send that fluid through the ileo-cæcal valve, you can introduce it into the small intestine. He thanked Dr. Young for his paper. It is an excellent one. It is true that the source of most diseases is found in the mal-assimilation of food. It is a more important subject to discuss than the germ theory—in which we are sailing along without rudder or compass. Many and many a time, he said, in prolonged surgical cases and in long-standing diseases, where the stomach was broken down and where assimilation was almost lost, has he kept the patient alive, for not days, but weeks, by simply introducing food into the bowels through a tube carried above the sigmoid flexure, and as far as possible above this point. The functional activity of the stomach was restored by the prolonged rest which this mode of administering food made possible, and the effects were wonderful. He saw, several years ago, the suggestion of the President of this Society of introducing cod-liver oil under the skin, and he embraced it at once. He does not care what the chemists say about the globule of oil being too large to be absorbed and introduced into the system in that way. He has seen time and again the good effects of this method of administering nutrition.

Dr. McDonald spoke of the necessity for great care in the election of the particular food and the necessity of having it artificially digested before being introduced into the rectum. Also the necessity of using the different methods conjointly—rectal, hypodermic and endermic. If the food is properly selected and properly prepared,

and it is introduced high up into the small intestine, and at the same time the surface covered or anointed with cod-liver oil, or even hog's-lard or various other preparations, he thinks life may frequently be prolonged until the stomach has sufficient rest to resume its duties.

Dr. Booth mentioned the advantage Dr. McGuire had in using his method in surgical cases, where he can place his patients in the knee-chest position for administering nutrient enemata, over physicians whose patients are often so weak they cannot be turned about. He said some physicians have the idea that it is better to throw the liquid high up into the colon, that it is more readily retained. He thinks that as the colon is the receptacle for putrid débris, no food has any business there. Stop it in the rectum or throw it into the small intestine. If we throw it into the colon it is absorbed very slowly and by the action of the bowels is returned almost in the same condition in which it was introduced. He recommended that the injection be very slowly performed. He mentioned the case of a child who had an attack of erysipelas following one of malarial fever. He wanted to give quinine and nourishment at the same time. Instead of lard, at the mother's suggestion he used neat's-foot oil with the quinine, and these two with the food, which he administered rectally. The little patient began to gain strength rapidly. In a case very similar he used vaseline with the quinine, and found that the quinine was not absorbed. He mentioned this to show the necessity of using animal oils.

Dr. McGuire thought in giving the alimentation by the rectum it was hard to conceive of a patient so weak as not to be placed in knee-chest position. In referring to the discharge of the fluid from the rectum as soon as the syringe has been removed, he said it will be remembered when the desire for a natural stool is resisted, after awhile the desire passes away. After this fluid is introduced into the rectum, and you tell the patient he must retain it, the effort to carry out the instruction induces retro-peristalsis. How far the food goes back he does not know, but he knows it goes far enough to give the patient some nourishment.

Dr. O'Hagan thought artificial alimentation of great advantage in certain classes of cases, and it is more especially desirable to practice it in that class of diseases of the intestinal canal which occurs in the infant population during the summer months; the source of which diseases in children is defective alimentation. It was formerly sought to control the morbid condition by medication.

He thought that the culinary art and the medical art should go together, side by side—one cannot get along without the other. He alluded to the importance of perfect rest of mind and body in overworked business men. He said we live too fast; we work too much. Our haste to get rich has deprived us of many of the pleasures of a more natural life. When the time comes when we need artificial food it is well to know what substance to apply. If you can introduce a substance already digested, you have but one work for the stomach to do—simply to receive it.

Dr. Payne, Jr., said: “After all that has been said, and so ably said, it would seem that little could be added germane to the subject of artificial alimentation. I cannot forbear, however, thanking Dr. Young for his able presentation of the subject, and I trust I may be pardoned if I briefly add the tithe of a tyro’s experience. My attention of late has been especially directed to the indigestion of infancy and early childhood, and I am satisfied, after careful and extended observation, that in the vast majority of cases indigestion at this tender age is intestinal rather than stomachic; in other words, the difficulty is experienced in the digestion of saccharine, starchy and oily foods, rather than in the digestion of the nitrogenous elements. Starch and sugar, instead of being transformed into glucose, undergo fermentation, and the oily matters, instead of being emulsified and absorbed, are split up into butyric and other fatty acids, which act as irritants. The symptoms which these little sufferers present are something as follows: the tongue is coated with a white fur, through which the papillæ show as red irritated points aggregated about the tip of the organ; there are acid eructations; foul smelling and acid breath; the stools are pasty and too light in color; constipation alternates with diarrhœa; colicky pains are complained of; the sleep is disturbed and the nervous manifestations are often so intense as to lead to grave suspicion lest they mark the approach of that insidious foe, tubercular meningitis. Nothing is more common than to see these symptoms mistaken for those produced by intestinal parasites and the little sufferer dosed with all manner of nauseous vermifuges without other effect than that of adding further to the already existing disturbance. In these cases I have seen the most remarkable results follow attention to the dietary. I have seen these little patients emaciated to the last degree, with prominent abdomens and parchment-like skins

quickly assume the rosy hue of health, when I have ordered that all medication, as implied in the administration of drugs, be discontinued ; that saccharine foods be excluded from the dietary, and that starchy foods be reduced to a minimum, while their transformation into glucose be insured by the administration, preferably during meals, of one of the preparations of malt. The preparation of malt, which I have found most generally useful, is the maltino wine with pepsin and pancreatin of Messrs. Reed & Carnrick, and I wish to make it clear that this maltine is not given as in any sense a food, but simply as a ferment, capable of transforming starch into glucose, and thus nature is aided in bringing about those changes which for the time being she is inadequate to accomplish. In conjunction with this plan of treatment, instead of taxing the stomach, or rather I should have said the intestine with the digestion of the necessary fat, I constantly recommend the inunction of cod-liver oil. This prescription is very distasteful to most parents and nurses, but if you will only try it faithfully in a few cases I am satisfied that you will be so well pleased with your results as to feel the necessity of insisting upon its faithful performance. In all of the wasting diseases of childhood I constantly recommend that at least one ounce, if possible more, of the best cod-liver oil be thoroughly rubbed into the body of the child once or thrice daily, the oil being most freely applied about the flexures of the joints, the inner surface of the thigh and the abdominal surface, which points seem to possess the greatest absorbing power. Much good seems often to be attained by placing the little patient in a bath of the oil while the inunction is being performed and an occasional warm bath just prior to the inunction, will greatly enhance the absorbent action of the skin. This method of treatment, gentlemen, will give remarkably good results in these cases, and I am so well satisfied of the great value of cod-liver oil inunctions that I think it very questionable whether the phthisical adult ought ever to have his enfeebled digestion taxed by its exhibition *per orem*, when every attainable good will result from inunction. I might cite case after case to illustrate the value of this dietetic management of the indigestion of early childhood, but these brief remarks will suffice to show the faith that is in me, and I trust may lead others to make a fair test of the methods indicated."

Dr. Edwards said in giving cod-liver oil he thought the best

results followed in changing the form occasionally. The necessity for this change was illustrated in the good effects often following a change of diet. Change your form of cod-liver oil as often as you find your first form disagrees with your patient.

President Graham said that he wished to explain what Dr. Young so kindly said as to his claims to originality of the hypodermatic use of cod-liver oil. The only claim he makes is that the use of it was suggested to him by the condition of his first case about twelve or thirteen years ago, not having heard or read of any such previous use of it. He also desired in connection with the subject of "Artificial Alimentation" to state that the late Dr. E. C. Alexander, of Charlotte, N. C., was kept alive and in good nutritive condition (about five or six years since) for the extraordinary time of sixteen months and sixteen days, entirely by means of food and drink introduced into the stomach through a stomach-pump. After the first introduction the instrument was used by the patient and his family without aid from any physician.

On motion, Dr. Young's essay was referred to the Committee on Publication.

The time for the conjoint session with the North Carolina Board of Health having arrived, President Graham invited Dr. J. W. Jones, President of the Board, to a seat on the rostrum, when the

CONJOINT SESSION

of the North Carolina Board of Health and the Medical Society of North Carolina was called to order by President Jones, who read his report as follows :

Gentlemen of the Medical Society and State Board of Health :-
From time to time and little by little, we have gotten the parts of the North Carolina Board of Health together. We occupy it. It is in motion. Its capacity is sufficient. Its power is enough. It is equipped by the State. It has the support and sympathy of our faithful Christian Governor. To-day we proudly walk its quarter-deck under the highest inspiration that man knows, "Good will to men."

The North Carolina Board of Health, organized and equipped in all its departments, with a monthly "Bulletin of Health," through which we may communicate, correspond and instruct, unites in conjoint session with the North Carolina Medical Society, to ex-

change views and propose plans that shall best advance our common work of making our people healthier, happier, wealthier and wiser.

While we thank you for the hearty aid and sympathy heretofore given, the Board of Health now bespeak your coöperation in our labors, without which our work at this stage must come to a standstill, and our noble ship of health, so grandly equipped, must remain in port or go to the beach. Permit us to suggest and insist that you organize at home into health organizations, county medical societies and county boards of health, to better instruct the people, collect all statistics and facts that may in any way aid in the study of causation and prevention of disease.

The first issue of the "Bulletin" of the North Carolina Board of Health is before you. We consider it a necessity to the successful work of the Board and the best means of getting and giving information. It is a medium of communication with our Governors Legislature, the people, the doctors and sanitary workers all over the world. It will go out as a monthly messenger of glad tidings, with healing in its wings, with words of truth and notes of cheer, or sounds of alarm if danger comes nigh.

To the circulation of the "Bulletin" and to its proper and discreet management, we look for the greatest good to the health department of the State. We commend it to your hearty sympathy and substantial support, and invite your contributions to its columns.

It has been the custom of the Secretary of the Board of Health to make a report to this body at our annual meetings. We are all pained and disappointed that this report cannot be made owing to the sickness of our Secretary, Dr. Thomas F. Wood. For the whole Board and the North Carolina Medical Society, we would give expression of our deepest sympathy for our brother and efficient and faithful Secretary.

We now enter upon the work of the conjoint session, and beg a free expression of opinion and a full interchange of views.

The President stated, in the absence of Dr. Wood, he could give only a very brief outline of the work of the State Board of Health. It is the intention of the Board, in the future, to publish a monthly bulletin, which will contain a synopsis of the reports of the county superintendents of health, with such other facts relative to the health of the State and hints regarding sanitary

matters as they may be able to collect. The work of the past year was mainly that of reforming the line of battle which, for want of the strengthening fibers of an appropriation, had gone to pieces. Forty-three counties have rallied to the call to arms, with the good work still going on, and the Board hopes, from the effects of the "Bulletin" circulating among the physicians (and any physician may become a subscriber by simply sending his name to the Secretary), and stimulating them into keeping pace with their working neighbors, for still better things this year.

Prof. Simmons being asked by the President to let the Society know what he had done in his department, said he had been requested by the Board to secure weather reports from different sections of the State and to prepare a paper on "illuminating oils." In the matter of the former he had established a voluntary observatory at Wake Forest. Besides that, he has been receiving, through the courtesy of Gen. Hazen, reports from four points on the coast, two in the central and one in the western portion of the State; also from Lynchburg, Virginia, and from Knoxville, Tennessee. The last two correspond very nearly with the weather in the mountainous parts of our State. These he had published in the "Bulletin." As to the latter part of his work—that of illuminating oils—he has not done all he wished, but the work is still in progress, and he thought best not to make his report at this meeting. He presented some memoranda showing the kinds of oils that are used in the State. The analyses were made with the "Tester," in accordance with the rules of the New York State Board of Health. The tests were made mainly to ascertain the danger in the oils now in use.

It will be seen that 5 out of the twelve "flash" below 100° F. He considered any remarks unnecessary.

Dr. Geo. G. Thomas thanked Prof. Simmons for his work, but said the portion of it which interests the people of the State is to know which the "high grade" oils are. The main purpose of the Board of Health is to preserve the people from danger, and the oils of low grade are very dangerous, and he would like Prof. Simmons to tell which are the best oils, that is, which are the safe oils, according to "the flash test."

Dr. Graham thought by informing the people of the danger of the "low-grade" oils the sale of that grade will be diminished, and in that way the manufacturers will be induced to furnish only the best grades.

Prof. Simmons said he got the samples of oil used from the merchants in his town and they were making issue with the manufacturers. The highest had the name of "Security Oil," but three or four had the same name, while the "flashing point" varied very much, sometimes as much as 12°.

Dr. Pierce—Are those which "flash" below 100° unsafe?

Prof. Simmons—Decidedly unsafe.

Dr. Pierce—How low can the "flashing point" be and the oil be safe?

Prof. Simmons—I would place the limit from 110° to 115°, perhaps at 112°.

Dr. Haigh thought the only way to remedy the evil resulting from the sale of low grades of oil is by reaching the manufacturers. Give the names of these manufacturers with the oil they sell and the "flashing points." This will have the effect of making the merchant who retails the oil insist that the manufacturer shall furnish him a safe quality of oil.

Dr. George Graham moved that the name of these oils and their "flashing points," with the names of the manufacturers, be published with the proceedings of the Board of Health.

President Jones explained that Prof. Simmons' reasons for asking for further time was not because the Board of Health was at all disinclined to publish these names, but the Professor, for want of time, had not completed his report, as he wished, and thought it better, that the whole should be published at one time.

Dr. Graham, on hearing this explanation, withdrew his motion.

Dr. McDonald, member of the Board of Health, said it was a very important question we had under discussion, but he could see no good in publishing the names of these manufacturers unless we could exclude their "low-grade" oils in future. It was a matter of great importance to the citizens of North Carolina, as inferior oils are very dangerous. There are subjects, however, of greater importance, even, than that of illuminating oils—the adulteration of foods, drugs, etc. The dishonest manufacturer often stands between the physician and his patient.

The President said that questions of that kind would appear in the "Bulletin" from time to time, as they came to the notice of the Board, and he hoped the profession would assist the Board by contributions on such subjects as may come to their attention.

On motion of Dr. Roberts, further time was allowed Prof. Simmons for the completion of his report.

Dr. Satchwell offered the following resolution :

WHEREAS, The proverbial neglect of our people, especially in the east, in the way of good drinking-water, and its importance in relation to health cannot well be over-estimated ; therefore,

Resolved, That the State Board of Health are hereby requested to prepare, at an early day, a paper upon this subject, to be spread broadcast over the State, through the public press and otherwise, setting forth its importance—the advantages of good cistern water, and giving a detailed statement of the proper methods of constructing cheap and effective cisterns.

The importance of this matter, and of informing people thereof, was discussed by several members.

Mr. Winslow, civil engineer of the Board, thought the best method of getting at the water supply in the State is to institute a sanitary survey of the State. He thought in that way we could gather a great many valuable facts which would place us in a position to give information to the people of any special locality, and induce them to improve their water supply.

Dr. Satchwell concurred with Mr. Winslow, but thought also that an occasional timely article would do a great deal of good.

Dr. McDonald said this subject came up before the regular meeting of the Board of Health the preceding day. It was thoroughly discussed, and the very act embodied in Dr. Satchwell's resolution was determined on for proper action, and the results will be published ; however, he was glad to have the matter further discussed in conjoint session.

Dr. Haigh asked if it was the business of the State chemist to analyze all water sent to him. He thought individuals would not be willing to stand the expense of having a sample of water analyzed for the benefit of the whole community. He thought the State Board should make some provision for paying the expense of transportation of such samples of water.

It was explained by the President that a permit could be obtained by any one from the Secretary of the State Board at Wilmington, on the presentation of which to the State chemist he would make analyses of the samples of water described therein and return a copy of those analyses to the person sending it. Directions for preparing and sending samples of water will be found on the permit, which also states

that the party sending it must pay express charges, as the Board of Health could not afford it.

Dr. Richard H. Lewis having been appointed at the Durham meeting to prepare a paper on "The Care of the Eyes and Ears in Children," entertained the Society for nearly an hour with an excellent paper on that subject, written for the information of the people, and so skillfully prepared that, while not slighting in the least any essential, it will be readily understood by persons of any intelligence whatever. (See Appendix.)

Dr. Haigh thanked Dr. Lewis for his very useful and practical paper, and especially that part referring to school children. He thought of all the oppressed classes in our community school children are the worst abused, and it would be a good plan to place this paper in the hands of every school teacher in the State.

Dr. George Thomas added his thanks, and said: "Our friend has the happiest faculty of discussing technical subjects in a plain way of any person I ever knew. The directions embodied in the paper for the proper lighting of school-houses are of the first importance, and should be sent to principals of all private schools and to the School Commissioners throughout the State."

Dr. Pierce expressed his thanks, and hoped the paper would be published either in the "Transactions" of the Society or by the State Board of Health.

On motion of Dr. Hays, the paper was referred to the Committee on Publication.

Dr. McDonald made a motion, which was carried, that the Board of Health have 20,000 copies of Dr. Lewis' paper struck off, in pamphlet form, for distribution throughout the State.

President Jones explained what is necessary to the organization of local boards of health, and enjoined upon the members the necessity for these organizations.

Reports of county superintendents of health were called for, and for Rowan county Dr. Summerell replied that a local board had been formed under the new law, but the physicians take but little interest in it—making no report of epidemics or serious sicknesses—hence his report to the Secretary is meagre. His efforts towards the improvement of the county jail and poor-house had met with only unfulfilled promises. He complained that, as Superintendent, he had been called on to treat a long and troublesome case in the person of a prisoner in

the jail, and that the county had been willing to give him only a small fee for his services. He hoped some relief might be devised for such cases. The necessity for a law compelling physicians to report contagious or infectious diseases was evident, and statistical information would be wanting until such a statute was enacted.

De. Pierce, speaking for Halifax county, said he agreed with Dr. Summerell, that reports of diseases should be obligatory both upon the physicians to send them to the county superintendent and upon him to forward them to the Secretary.

The President explained the defect in the law, which did not compel physicians to report deaths, but he hoped that this would be remedied.

Dr. Summerell thought we could make no advance in the matter of vital statistics until we have a compulsory law.

There being no further business before the house, the conjoint session was declared adjourned.

The Committee on Credentials reported on the name of Dr. E. Porter, delegate from Pender County Medical Society.

Adjourned to meet at 3½ o'clock P. M.

SECOND DAY—AFTERNOON SESSION.

The meeting was called to order at 3½ o'clock.

Dr. Charles Duffy exhibited a child, whose left foot and leg had been severely burned. He had been compelled to use the knife very extensively in order to overcome the deformity resulting from the cicatrices. This case shows the advantages to be derived from persistent training system of treating muscular contractions.

The Committee on Essayist made the following report :

"The Committee appointed to select an Essayist for the next annual meeting, beg leave to present the name of Dr. George G. Thomas, of Wilmington, N. C.

" J. J. SUMMERELL,

" H. T. BAHNSON,

" W. D. HILLIARD,

" Committee."

The following committee to prescribe rules for awarding the "Pittman Prize" was appointed: Drs. H. T. Bahnson, A. B. Pierce and W. D. Hilliard.

A communication from the Woman's Christian Temperance Union, requesting the State Society to abolish the use of alcoholic medicine from their practice, was read.

Dr. Bahnson said he considered it a direct insult to the medical profession of North Carolina to have a communication of this kind presented to it, and moved that it be laid on the table, which motion was carried.

The report of the chairman of the section on Practice of Medicine was called for, but the gentleman was absent.

The chairman of the section on Materia Medica was also absent.

On motion of Dr. Haigh, these reports were referred to the Committee on Publication.

A communication relative to the practicing of medicine contrary to law was declared out of order, the President regarding it as a matter for the grand juries to decide.

Dr. S. D. Booth exhibited an instrument for the application of powdered drugs to the cervical canal and internal surface of the womb. The invention was his own, and he read a paper explaining the use of it.

Dr. Bahnson made some remarks on the subject, and asked various questions regarding it, which were answered satisfactorily by Dr. Booth.

Dr. Booth intended his paper for a prize essay, but waived his right to a prize, preferring to present his instrument before the Society. His paper was referred to the Publication Committee.

Dr. Bahnson made further remarks on Dr. Booth's paper, and was followed by Drs. McGuire and W. J. Jones.

The Committee on Credentials reported on the names of Drs. Martin H. Harper, Harpers, and H. H. Harris, Wake Forest.

On motion, the report was received.

Dr. Murphy withdrew his resolution offered at the morning session, and moved that a committee of three be appointed to act with the Board of Censors in investigating the matter of his complaint.

The motion was seconded by Dr. Porter, who proceeded to make some remarks on it, but was interrupted by Dr. Haigh, who rose to a point of order. He said he was not aware that there was any charge against any gentleman; if there was an appeal should be made to the Board of Censors.

The chair ruled that any complaint must come through the Board

of Censors, and cited Section 4 of Article IV of the Constitution to sustain his opinion. He said that was his opinion in the matter, and he would have to declare the motion out of order. He reminded the gentleman that he had the right of appeal to the house from the chair's decision.

Dr. Porter appealed from the ruling of the President, and upon its reference to the meeting the point made, that the whole matter, both the resolution and the remarks upon it, were out of order, was sustained.

Dr. Bahnson rose and said : " We have a gentleman in the house for whom every one must entertain the highest respect as well as regard. We have, I believe, only four honorary members of our Society. I move that we confer upon Dr. Hunter McGuire the credentials of honorary membership in the North Carolina Medical Society."

The motion was carried by a rising vote.

Dr. McGuire said he could only thank the Society for the honor they had done him—one which he valued very highly. He said he was embarrassed even more than he was this morning, and it would be a work of supererogation for him to say he could not speak, but he felt the honor from his heart and appreciated it greatly.

The Committee on Nominations made the following report, which was accepted.

President—H. T. Bahnson, Salem.

Vice-Presidents—G. G. Smith, Concord ; J. L. Nicholson, Richlands ; C. M. Poole, Salisbury ; H. B. Ferguson, Halifax.

Secretary—Dr. Julian M. Baker, Tarborough.

Treasurer—Dr. R. L. Payne, Jr., Lexington.

Orator—Dr. J. M. Hays, Oxford.

Committee on Publication—Drs. Thomas F. Wood, Wilmington ; George G. Thomas, Wilmington ; W. T. Ennett, Burgaw ; J. M. Baker, Tarborough.

Board of Censors—Drs. W. J. Love, George G. Thomas, W. W. Lane, Wilmington.

Delegates to the American Medical Association—Drs. A. B. Pierce, Weldon ; C. J. O'Hagan, Greenville ; N. J. Pittman, Tarborough ; S. D. Booth, Oxford ; John H. Tucker, Henderson ; W. D. Hilliard, Asheville ; A. G. Carr, Durham ; J. W. McNeill, Fayetteville ; F. M. Garrett, All Healing Springs ; Eugene Grissom, Raleigh ; Henry Tull, Kinston ; E. H. Hornaday, Willow Green.

Delegates to the Virginia Medical Society—Drs. W. T. Cheatham, Henderson; P. L. Murphy, Morganton; S. S. Satchwell, Rocky Point.

Delegates to the South Carolina Medical Society—Drs. George W. Graham, Charlotte; Charles Duffy, New Bern; D. M. Pattison, Mangum.

Dr. R. H. Lewis read the following report of the Committee on the President's Message :

"We, the undersigned committee appointed to consider the address of the President of the Society, and the suggestions therein made, and make report on the same to this body, respectfully recommend as follows :

First—With regard to clause of open debate, the committee say, that the President of the Society shall, within three months after each annual meeting, appoint from the Society one or more members, who shall be known as "leaders of debate" in the meeting so following their appointment. Their appointment shall be made known directly from the President; that within thirty days from the said appointment the leaders of debate so selected shall notify the Secretary of the Society of the subject chosen by him, whereupon the Secretary shall at once notify, by proper means, each member of the subject to be discussed and the names of the leaders of debate of said subjects; that the subject so chosen shall be discussed in open debate, under the ordinary rules, the leader opening the discussion and having the right to the conclusion of the argument.

Second—Regarding the deliberations of the Nominating Committee, that it is the sense of the Society that the deliberations of the Nominating Committee shall be both private and confidential. All matters reported to said committee and all discussions in the body of said committee shall be thus held and considered by the members thereof; that said committee shall make report to the Society of such matters as they may have in charge, or deem expedient in said report, using a proper and just discretion to maintain the secret and confidential character of the deliberations of this committee. The committee would say that no extended remarks are wanted to impress upon the brethren the importance of this suggestion, on which the life and honorable character of the Society depends.

Regarding the suggestions of the excellent and instructive address on which we are called upon to report, their value is well known to the Society, but this committee recommends that the Secretary be requested to write to a leading practitioner in each county which has no medical society and endeavor to interest him in the formation of such county organizations.

"All of which is most respectfully reported.

"W. T. ENNETT,

"R. H. LEWIS."

On motion the report was adopted.

The President said that the physicians of Charlotte would be glad to have the Society meet there next year.

Dr. Booth moved that the invitation of the President be accepted, and that the Society meet next year in Charlotte.

Dr. Haigh renewed his invitation, and would consent to meet in Charlotte in 1887 only on agreement to meet in Fayetteville the year following.

Dr. Booth's motion prevailed.

The President asked if anything was to be done about changing the time of meeting.

Dr. Murphy moved that the time be made the third Tuesday in May.

Dr. Lewis thought as most of the young physicians graduated in March, the Society should give them as early an opportunity as possible to comply with the laws of the State. As it is, they have to wait in idleness about two months and a half, or violate the law by practising without a license.

After considerable discussion concerning the advisability and legality of changing the time of meeting, on motion of Dr. Roberts the motion was laid on the table to be taken up at the evening session under the head of "New Business."

The President thanked the Society for the favor done the Charlotte profession by selecting it as the next place of meeting.

Adjourned until 8½ P. M.

SECOND DAY—EVENING SESSION.

The meeting was called to order by the President, and Dr. Geo. W. Long, of Graham, delivered the annual oration. It was short,

spicy and replete with sound doctrine, and was attentively listened to and appreciated by his large audience, among which was a goodly number of ladies.

On motion of Dr. Picôt, it was referred to the Publication Committee.

Dr. McDonald moved, as there was but very little work left to do, that the business be completed to-night, as many members desired to go on the excursion to-morrow.

It was objected to on the ground that there were members present who had gone to considerable expense and trouble to bring some specimens which they wished to exhibit, and which they could not present if the meeting closes to-night.

Dr. McDonald withdrew his motion.

The matter of changing the time of meeting was brought up as unfinished business from the afternoon session, and, after considerable discussion, an earlier opportunity for new graduates to obtain their licenses was considered just cause for changing the time of the next meeting to the second Wednesday in April.

The Committee on Prize Essays made the following report, which was adopted:

"To the President and members of the North Carolina Medical Society:

"GENTLEMEN :—Your Committee on the Prize Essays, after careful consideration of the papers presented to this session of the Society, have decided not to award the prizes to any of the competitors, but beg leave to suggest that, to attain the high standard for these essays which we judge it is the aim of the Society to accomplish, it shall offer \$50 each for the best original essay that shall be presented at the session of 1887 on Surgery, Gynæcology and Obstetrics, and Practice of Medicine.

"The Committee shall have the power to reject all essays. If the prize shall be awarded in any one, or all of the branches of medicine indicated above, the successful essay or essays shall be presented to the Society for publication.

"All essays must be sent to one of the members of the Committee not later than *four weeks* immediately preceding the next session of the Society. They must be written over a *nom de plume*, and accompanied by a sealed envelope containing the name of the

author, the *nom de plume* being written on the back of the same envelope.

"GEO. GILLETT THOMAS,

"JNO. McDONALD,

"H. T. BAHNSON,

"Committee."

The President stated that there was a mistake made in appointing the committee on the "Pittman Prize," he having appointed only three, when the resolution was for five, and the President to constitute one. He appointed Dr. Ennett, who, with the President, increased the committee to five.

Dr. Pierce presented the report of the above committee, as follows :

"The committee appointed to take into consideration the rules and regulations governing the "Pittman Prize," beg leave to submit the following report :

"A prize of \$100 is offered for the best original article on some scientific subject connected with medicine. The highest standard of excellence will be required to win, leaving the subject matter to parties competing. The article must be written over a *nom de plume*, with the name of the contributor, in a sealed envelope, marked with the *nom de plume*, and it shall be forwarded to the committee at least four weeks before the next meeting of the Society. Open to all members of the North Carolina State Medical Society.

"Very respectfully submitted,

"A. B. PIERCE,

"JOS. GRAHAM,

"H. T. BAHNSON,

"W. T. ENNETT,

"W. D. HILLIARD."

The report was accepted.

On motion of Dr. Payne, Jr., the meeting voted to pay the *phonographer* \$15 for his services.

The chair appointed Drs. R. H. Lewis, W. J. Jones and John McDonald a committee on "Prize Essays" for the next meeting.

A motion to publish the Code of Ethics with the proceedings of this meeting, made by Dr. Dunn, was carried.

The President announced as constituting the committee to award

the "Pittman Prize" Drs. Charles Duffy, A. B. Pierce and W. T. Cheatham.

Adjourned until 3 o'clock P. M. Friday.

THIRD DAY.

At 9:30 o'clock, in pursuance of the programme laid out the first day, many members of the Society and quite a number of citizens embarked on the elegant steamer Shenandoah for an excursion under the auspices of the Board of Trade and Cotton Exchange, given in honor of the Medical Society. The steamer made a run of about 20 miles down the Neuse river, and then, with the regret of all aboard that the trip was half over, turned her prow homeward. On the return trip an impromptu meeting was held in the main cabin, with President Graham in the chair and Dr. Bahnson as Secretary.

Dr. Bahnson, in explaining the object of the meeting, said:

Mr. President and Gentlemen of the North Carolina Medical Society:—You have imposed upon me a pleasant task; it is to express the heartfelt thanks of the members of this Society for the warm welcome, generous hospitality and courteous attention extended to us by the citizens of New Bern. We wish them to be assured of our appreciation of their kindness. We shall carry away with us to our homes the most delightful recollections of their town and its people. I move the adoption of the following resolutions:

1st. That the thanks of the Society are due to its New Bern members for their invitation to visit this beautiful city, so important and interesting in the history of the State.

2d. That our unstinted gratitude is hereby tendered to the citizens of New Bern for the hearty welcome and generous hospitality with which they have seconded the invitation of their medical representatives.

3d. That we shall hold ourselves under lasting obligations for the countless civilities received by us from members of kindred professions, representatives of the press and commercial bodies, railroad and steamboat officials and all others who, in either a public or private capacity, have contributed to the pleasure and interest of this memorable occasion.

4th. That a copy of these resolutions be spread upon the minutes of the Society.

The resolutions were unanimously adopted, being seconded by Dr. McDonald in an enthusiastic and appropriate speech, in which he mentioned the fact that the President and himself were both natives of New Bern, and, he believed, born in the same house.

Mr. F. M. Simmons being called for, responded in a neat speech in behalf of the Cotton and Grain Exchange, the Board of Trade, the O. D. S. S. Co. and the citizens of New Bern.

The New Bern Cornet Band added much to the enjoyment of the trip with their delightful music. Among the most pleasant incidents connected with the excursion was the rendition of a few popular songs, in a most charming manner, by a chorus of fair singers.

At 1:30 o'clock the steamer drew up to her moorings, the lines were made fast and the passengers reluctantly stepped ashore.

THIRD DAY—AFTERNOON SESSION.

The meeting was called to order at 3 o'clock.

On motion of Dr. Young, Drs. Geo. W. Graham, J. P. McCombs, S. B. Jones, R. H. Gibbons and H. M. Wilder were appointed a committee of arrangements for the next annual meeting to be held in Charlotte.

The chair announced that the hour for the installation of officers had arrived, and appointed Drs. McDonald and Smith to conduct the President to the chair.

Dr. Jos. Graham, the retiring President, surrendered the gavel to Dr. Bahnson in an appropriate speech, thanking the members of the Society for the courtesies and coöperation he had met with at their hands.

Dr. Bahnson in taking the chair expressed his deep sense of the honor conferred upon him, and of the important duties attending his office. The former would always receive his most hearty appreciation and the latter his most zealous efforts to perform faithfully.

Dr. W. L. Crump reported a case of twins with separate placenta for each and a distinct set of membranes for each placenta. He was requested to prepare a paper descriptive of the case to be referred to the Committee on Publication.

Dr. Henry B. Furgerson, being absent, exhibited to the Society

through the Secretary a urinary calculus weighing two ounces which was passed through the urethra without operation. He having sent no description of the manner in which it was removed, Dr. McDonald moved that the Secretary request Dr. Furgerson to write a description of the details for publication in the "Transactions." In pursuance of the request he sent the following paper :

"About eighteen months ago I was called to attend a patient about sixty years old. She had suffered severely from cystitis, and there were found deposits of uric acid and phosphates, with large accumulation of mucus in the urine. Liq. potassæ, lithia and buchu were exhibited and hydrastis canadensis used as injection. This treatment gave considerable relief. Not thinking it an aggravated case of stone, upon recurrence of symptoms I directed the same treatment. In a short while I was called to see the patient. There was considerable distention about the region of the bladder, and urine was not voided in 30 hours. In effort to introduce catheter I found obstruction in the meatus urenâris that proved to be a stone weighing two ounces and as large as a medium hen-egg. It was composed of phosphates with strata of uric acid. By the slightest effort with forceps the stone was taken from the meatus.

"Upon reference to authorities I am opinion there is no instance upon record of as large a stone as this taken from the female urethra by a natural process of dilatation.

"The patient has entirely recovered.

"Very respectfully,

"HENRY B. FURGERSON."

Dr. Payne, Jr., presented a paper describing a case of peculiar menstruation during pregnancy, which was referred to the Publication Committee.

Dr. Joseph Graham thanked Dr. Payne for bringing up these clinical reports, as such reports are of more interest to the Society than any long reports culled from our text-books.

The President urged the members of the Society, and especially the younger ones, to make their cases of interest known to the Society.

Dr. Baker reported a case of injury to the brain of 27 years standing operated on successfully. The patient has died since with a disease entirely distinct from the lesion left by the original injury

He was requested to prepare a paper descriptive of the case for publication in the "Transactions."

Dr. Baker presented a paper from Dr. Thomas F. Wood, entitled "The Terebinthenates—Especially Some of the New Chemical Products from Oil of Turpentine," which Dr. Wood asked to have read by title. He was interrupted in its preparation by an attack of sickness, but hoped to finish it in time for the "Transactions."

Dr. Wood's paper was referred to the Publication Committee.

Dr. Joseph Graham reported an operation for mammary cancer, involving also the glands of the axilla. The only promise held out to patients with such wide extension of the disease as in this case, was a likelihood of prolonging life and lessening suffering, without certain hope of cure. The feature of the operation which he wished to call attention to was the aseptic condition of the wound accomplished without the burdensome details of extreme Listerism. Cleanliness is, he thinks, at last the great principle to be observed, and the use of the bichloride solution and other antiseptic medicines insured clean hands as well as clean wound, by destroying the ferments on the hands of the operator. The line of incision extended from the axilla to the ensiform cartilage, about eleven inches in length, with an additional elliptical incision to include the mammary gland. This gland had to be torn out by force, as he only used the scalpel when he could not avoid it. The cavity was sponged out with bichloride solution 1 to 2,000; all oozing was checked and the incision closely united by sutures, which, with the necessary ligatures, had been soaked with the bichloride. A cotton pad, wet with the antiseptic fluid, was put over the wound, and a dry piece over this, all followed by a bandage. The dressing was removed on the seventh day and the union was complete, without any suppuration. The patient recovered without a bad symptom.

Dr. Poole mentioned an experience in cutting out an old cancer of the breast where he had a complete union by first intention and used no antiseptic whatever. Washed out the wound with clean water and applied carbolic acid and sweet oil.

In reply to inquiries made by Dr. Graham as to the disturbance afterward, said he did not look at the wound for a week, and then it was solid, with no tendency to open. There was no suppuration, even around the ligatures.

Dr. Payne, Jr., said this shows us how much depends on cleanliness in surgery ; he thought it the main thing.

The President announced the following chairmen of sections for the next meeting :

Practice of Medicine—Dr. Isaac N. Taylor, China Grove.

Surgery—Dr. Frank Brown, Greenville.

Medical Jurisprudence—Dr. Sion Rogers, Raleigh.

Pathology and Microscopy—Dr. D. T. Tayloe, Washington.

Obstetrics and Gynæcology—Dr. E. M. Littlejohn, Thomasville.

Materia Medica and Therapeutics—Dr. W. L. Crump, South River.

Diseases of Children—Dr. L. W. Battle, Durham.

Dr. Young was first appointed on the section of Obstetrics and Gynæcology, but asked to be relieved, as he had been before the Society at the last two meetings, and suggested the name of Dr. Littlejohn in his stead.

The President said his reason for appointing Dr. Young again was because of his having served the Society so satisfactorily on those former occasions. However, Dr. Young insisting, he would appoint Dr. Littlejohn on condition that if he did not turn up at next meeting with a good paper, Dr. Young would stand the blame.

The roll was called again, and the meeting adjourned to meet in Charlotte on the second Wednesday in April, 1887.

REPORT OF THE BOARD OF MEDICAL EXAMINERS.

OFFICE SECRETARY BOARD OF MEDICAL EXAMINERS, }
WILMINGTON, N. C., June 17, 1886. }

At the regular annual meeting of the Board of Medical Examiners, which convened in New Bern May 18th, 1886, *et seq.*, the following applicants, after a thorough examination, were licensed to practice medicine in conformity with the laws of North Carolina :

Dr. James M. Boy Ette, Little River Academy, Cumberland county.

“ S. Hassell, Columbia, Tyrrell co.

“ D. B. Zollicoffer, Garysburg, Northampton co.

“ J. A. Faison, Mt. Olive, Wayne co.

“ J. R. Rogers, Apex, Wake co.

“ J. L. Moore, Weldon, Halifax co.

“ T. J. Phillips, Dalton, Stoks co.

Dr. J. H. Powell, Castoria, Green co.

" G. W. Kernodle, Morton's Store, Alamance co.

" A. L. Petree, Winston, Forsythe co.

" J. J. L. McCullers, Raleigh, Wake co.

" F. T. Foard, Newton, Catawba co.

" H. T. Chapin, Pittsboro', Chatham co.

" L. B. Young, Rolesville, Wake co.

" K. M. Clark, Kittrells, Vance co.

" G. A. Ramseur, Maiden, Catawba co.

" Wm. H. Ward, Plymouth, Washington co.

" J. G. Riddick, Raleigh, Wake co.

" Thomas H. Leary, Edenton, Chowan co.

" John P. Munroe, Durham, Durham co.

" Samuel C. McClure, Statesville, Iredell co.

" Charles B. Woodley, Kinston, Lenoir co.

" Charles R. Gurkin, Jamesville, Martin co.

" Benjamin W. Burt, Enno, Wake co.

" F. P. Gates, Kinston, Lenoir co.

" John H. Harris, Rolesville, Wake co.

" M. R. Braswell, Rocky Mount, Nash co.

" R. W. Tait, Wallace, Duplin co.

" James C. Black, Springville, Cabarrus co.

" B. C. Moore, White's Store, Anson co.

" C. B. Ingram, Mt. Gilead, Montgomery co.

" Thomas P. Wynn, Warrenton, Warren co.

" John E. McLaughlin, Statesville, Iredell co.

" Joseph J. Mann, Louisburg, Franklin co.

" Archie McKinnon, Lumber Bridge, Robeson co.

" Benjamin F. Cox, Palmersville, Stanly co.

" A. J. Buffaloe, Raleigh, Wake co.

" Ed. M. Hollingsworth, Mt. Airy, Surry co.

" Joseph I. Hollingsworth, Mt. Airy, Surry co.

" Wm. B. Crawford, Goldsboro', Wayne co.

" William A. Monroe, Union Church, Moore co.

" William E. Wilson, Davidson College, Mecklenburg co.

" John McC. De Armon, Alexandriana, Mecklenburg co.

" M. T. Pope (col'd), Rich Square, Northampton co.

" L. A. Scruggs (col'd), Liberty. Va.

" J. T. Williams (col'd), Charlotte, Mecklenburg co.—Total, 46

There were sixteen applicants who were either rejected or were allowed to withdraw their application for license.


W. J. H. BELLAMY, M.D., Secretary.

EDITORIAL.

THE NORTH CAROLINA MEDICAL JOURNAL.

A MONTHLY JOURNAL OF MEDICINE AND SURGERY, PUBLISHED IN
WILMINGTON, N. C.

THOMAS F. WOOD, M. D., Wilmington, N. C., Editor.

 *Original communications are solicited from all parts of the country, and especially from the medical profession of THE CAROLINAS. Articles requiring illustrations can be promptly supplied by previous arrangement with the Editor. Any subscriber can have a specimen number sent free of cost to a friend whose attention he desires to call to the JOURNAL, by sending the address to this office. Prompt remittances from subscribers are absolutely necessary to enable us to maintain our work with vigor and acceptability. All remittances must be made payable to THOMAS F. WOOD, M. D., P. O. Drawer 791, Wilmington, N. C.*

STATE REGULATION OF THE PRACTICE OF MEDICINE.

A correspondent of the *New York Medical Record*, giving his name as "North Carolinian," sets forth what he considers the unjustness of the law of this State regulating the practice of medicine. The author of the correspondence referred to has written with dignity, and has touched upon points which need some elucidation.

The first criticism, that it is unjust to date the exemption arbitrarily from 1880, is not without a show of reason. We will give a scrap of history *a propos*: The bill which passed the Senate, and, we believe, the House, did not have the provisional clause mentioned above. This amendment was added by a member of the House

who was a practising physician, or who was surely a medical man with a title, but had no connection whatever with the Medical Society of North Carolina. It was a surprise when the friends of the bill returned to their homes to receive the information that the clause admitting to the practice all who had diplomas from regular medical colleges before 1880, had been appended.

The first meeting of the Medical Society held under the provisions of the new law was in Durham in May, 1885. At that meeting the construction which the Society desired to place upon the law was expressed in the following resolution :

"WHEREAS, It is desirable to make the requirements of membership in the Medical Society of North Carolina accord with the law enacted by the General Assembly of 1885, therefore be it

"*Resolved*, That the following persons are eligible to membership in the Medical Society of North Carolina :

"1st. All physicians in good standing who are graduates of regular medical colleges prior to January 1st, 1880.

"2d. All physicians who began the practice of medicine previous to April 5th, 1859, and who produce testimonials of good standing and skill sufficient to satisfy the Committee on Credentials of this Society."

The Society could not alter the law, but while they were willing to abide by it, they desired to show the intention to be more liberal than the law, at least in the test of membership.

We have said this much upon the point referred to to show that the motives attributed by "North Carolinian" to the gentlemen from the State Medical Society who were influential in having the law enacted were not such as he supposes. No one sees more plainly the imperfection of the law than the present writer, but when it is considered how imperfect the best matured laws are, it is not remarkable that laws passed in the hurry of a Legislature, the sessions of which continue only sixty days, should also be imperfect. We are prepared to show, if more need be said, that the clause which so offends "North Carolinian" was not suggested or even thought of by members of the Society who gave their influence to amend the old law.

According to the statement of "North Carolinian" the law, after all, is not such a hardship to him and the class he so ably represents. We believe he can sustain his statement in part, at any rate, that "as a class we [the younger members] are ready, under any and all circumstances, to measure with the older members in all that per-

tains to the technique of our common profession," and for this very reason, we say, they ought all the more readily submit to a law which was intended to debar not the competent but the incompetent. No one would gravely make the assertion that because of the superior teaching and discipline of most of the medical colleges of to-day that all younger members of the profession are equally well educated, for not only have the examinations of the Board of Medical Examiners of this State shown this to be a fallacy, but it is a matter of common notoriety in and out of the profession.

We think that "North Carolinian" has not understood the temper and disposition of the medical profession in the State if he believes that anything was contemplated by them save to have a law enacted which would give to the people of the State better doctors. We know also by some of his allusions that he has in his mind certain *soi-disant* leaders who do not represent the profession. It is very humiliating, not more to the representatives of the younger than of the older class of physicians, to see exhibitions of gross ignorance upon the witness stand and elsewhere, but this does not justify the sneer which he casts upon all of the older men of the profession in the State.

We leave the subject, with the wish that "North Carolinian" will see that no injustice was intended to the class of young men to which he belongs, and that the distinction made in favor of the graduates with diplomas antedating 1880 was not owing to the provisions of the statute which was presented to the Legislature by the members of the Medical Society favoring the change, but was the amendment added at the instance of a member of the Legislature, and without the consent of the majority of the Society's delegation, who, thinking the bill safe, had left Raleigh. It is simple justice, however, to say in this connection, that it seemed to those gentlemen, members of the Society, young men, too, like our friend, who had charge of the bill at the close of the session, that it was better to accept the bill with the amendment than to run the risk of exciting so much opposition that its passage might be imperilled.

It will be well worth the future administrations of the Medical Society to keep before them the prompt and intelligent dispatch of business which was one of the excellent features of the meeting at New Bern this year under the wise guidance of the President, Dr. Joseph Graham.

THE COLORED LICENTIATES OF THE STATE BOARD OF EXAMINERS.

We note with much satisfaction that among the licentiates of the Board of Examiners at New Bern there were three colored men, all of whom, we are informed, were well worthy of the official permission to practice medicine and surgery which they received at the hands of the Examiners. Among the most enlightened and best educated people there is a tinge of superstition more or less pronounced in all matters connected with the administration of medicine for the cure of the sick, and among the people to whom these young men will offer their services this is a well-known trait of character. The ignorant medicine man of the Indians has his exact analogy in the herb-doctor and conjurer of the negro, and these new licentiates will be weighted with a new responsibility in addition to the sustenance of their characters as physicians, in the dispensing among their race the wholesome truths of health—how to get it and how to keep it—which include the best portions of their education, and which, if earnestly and honestly set forth, not with vain-glorious parade of their knowledge, but in fear of the responsibility which their calling imposes on them, will do much for the elevation of the character of their colored friends, as well as enlighten their minds in purifying their life and thoughts. They have therefore a wide field for usefulness in their two-fold mission of physicians and teachers, and the failure to improve these opportunities will bring much disappointment to those who are watching their career with interest and with hearty wishes for their success.

I TAKE PLEASURE in announcing to the friends of the JOURNAL that Dr. George Gillett Thomas, of this city, will from this issue be associated with me in the future in its editorial management. Dr. Thomas is well known to the medical profession of North Carolina as one of the active and able supporters of the work of the State Medical Society, and is also highly esteemed among his colleagues as a successful practitioner, and a gentleman of superior literary-scientific cultivation. He brings to the work the ardor which a robust physique

and devotion to the science and art of medicine can inspire, and the future of the JOURNAL is greatly enhanced by his coöperation.

I am admonished by the state of my health, as well as by the advice of my learned and sympathizing medical conferees, to lead merely a passive life as long as there is hope of recovery from my serious illness; so that my connection with the JOURNAL will be merely nominal for an indefinite period.

I take this opportunity of thanking my friends who have so kindly supported and sustained the work of the profession of the State through the agency of the JOURNAL—for the JOURNAL has had no existence apart from the welfare of the entire profession—and who, in the years of its struggling existence, and in the later years of its prosperity alike have been steadfast in their friendship.

I know not how to express my gratitude to my colleagues of the Medical Society of North Carolina and its auxiliary bodies for the public and private expressions of affection and sympathy for me in my affliction, and in hopes and prayers for my recovery. It is very consoling to hear so strong an expression from the friends with whom I have worked so arduously to achieve the good things which have come to pass in the profession of dear old North Carolina in our day, that my efforts have availed something in the achievement of the results. But I thank God that what I undertook with your help was the welfare of the whole profession, and as it has been blessed in its inception, so will it be in its complete development. To accomplish this end we must not for a moment consider our work complete. The success already achieved has aroused the antagonism of a few in our profession, and we must heed this opposition, not to yield to it, but to study the grounds of opposition calmly, that we may first correct our errors, and then present an undivided front.

We have exceptionally able leadership in our State Medical Society, but we ought to beware of the uncertainty of the life and health of leaders, and each individual member should study thoroughly the work in hand, and impose upon himself some task in connection with the objects of the Society that will tend to promote unity and make an unbroken succession of healthful prosperity the heritage of the Society for all time to come.

WE regret to be called upon to announce the death of Dr. S. B. Flowers, of Mt. Olive.

REVIEWS AND BOOK NOTICES.

KÖHLER'S MEDIZINAL-PFLANZEN.

A recent bundle from Germany brings us another installment of this excellent work, from the 15th to the 18th *fasciculus*. It has been reviewed before in these pages, and still deserves more than a passing notice. Many physicians, in the course of their experience, desire information about medicinal plants which will supply their lack of knowledge in technical botany. The most satisfying plan, of course, is to furnish themselves with well-drawn and colored illustrations with short textual descriptions. A glance at a good drawing will convey more knowledge to the average reader than any sort of a written description; Köhler's Atlas supplies this want exactly, and moreover is furnished at the rate of one mark for each *fasciculus* of 4 plates—40 comprising the entire work.

Among the most noticeable of the illustrations we select that of *Digitalis purpurea* as being admirably well executed—true in coloring and drawing. *Rhamnus Cathartica* is also beautifully delineated; also *Humulus Lupulus*, *Achillea Millefolium* and *Aconitum Napellus*. We looked with excited interest at the plate representing *Pilocarpus pinnatifolius* (Jaborandi). The first glance calls to mind (pictorially, not botanically) a fruiting specimen of *Phytolacca decandra*, but a closer inspection shows that what appears to be purplish berries are flowers, and the apparent resemblance at once ceases.

Druggists who desire to be something more than the retail agents of wholesale chemists, and medical men who have not abandoned their leisure hours to fishing and gunning, could profitably fill in their time with such entertainment as may be found in Köhler's Atlas. The obstacle to many will be that the text is in German.

DISEASES OF THE DIGESTIVE ORGANS IN CHILDREN. By LOUIS STARR, M.D. Pp. 373. P. Blakiston, Son & Co., Philadelphia.

The author of this book has quite lately ably edited the work of Eustace Smith on the "Diseases of Childhood and Infancy," and in this connection we had the opportunity to see the imprint of his skilful pen. The present work, however, is the result of his careful personal observation in both hospital and private practice, and it is well worthy of the earnest study of the general practitioner. It

covers much ground that is left open in the large and general treatises on pediatrics, in supplying well arranged dietaries for children ; setting forth with clearness the proper foods, the quantity to be given, its mode of preparation, and the intervals to be observed between the meals. He has also written directions for the bathing and proper clothing for the little ones. There is no want of conciseness, no tiresome length in these chapters. We have read the book with pleasure and profit, and shall turn to it with confidence for advice.

THE STUDENT'S MANUAL OF VENEREAL DISEASES. By BERKELEY HILL, D.D., and ARTHUR COOPER, M.D. Fourth Edition Revised. Pp. 132. P. Blakiston, Son & Co., Philadelphia.

This is one of the student's manuals issued by these enterprising publishers, and in quite a concise way presents the leading features of venereal diseases, with copious hints for treatment, and a number of formulæ which will serve as a safe guide for the student. It is sufficient evidence of the esteem in which the work is held that a fourth edition has been called for and issued. To serve the purposes it was intended for—a manual for students, an introduction to complete text-books on venereal diseases, we can heartily recommend it.

CORRESPONDENCE.

PARIS LETTER.

LONDON, May, 1886.

Dr. THOS. F. WOOD, *Editor North Carolina Medical Journal*:

You need not be told that my time here is very much occupied, but having agreed to your request to send letters to the *JOURNAL*, I must keep my promise. And I do so the more cheerfully because I am always glad to do anything which, in the opinion of its editor, is likely to help along, be it ever so little, such a worthy enterprise—an enterprise that ought to be fostered and encouraged by every medical man in the State.

The vastness of London is something difficult to appreciate. The Metropolitan Police District extends from twelve to fifteen miles in every direction from the center at Charing Cross. This includes land in the suburbs that is not occupied by buildings, but there are streets and squares covering an area of one hundred and twenty-two square miles. It has spread around and absorbed, literally by the score, neighboring towns that were formerly distinct and that still retain their old names, though now forming a part of the city. It has much more than half a million buildings, and its paved streets are more than 2,600 miles in length. Within the last forty years the population of the city has doubled itself, and is now about four and a half millions. Its paupers alone number three times as many persons as there are in the whole of Wake county. But while there are so many people unable to support themselves, the wealth of the city is of course enormous. I have seen the remark somewhere that in New York the wealth was that of individuals, whereas in London it was that of whole classes. But even with this idea of the size of London and the conclusion we draw of the resources of its people, one is scarcely prepared for the statement of the number of its charities. There are over 2,000 separate organizations for charitable purposes, including hospitals, dispensaries, asylums and societies devoted to every conceivable benevolent purpose. In a short list of some of these that I have they extend from the "Society for the Relief of Americans in Distress" to the "Young Workingmen's Home." First in importance among these charities are the hospitals and dispensaries. Of these there are no less than 192. They are almost without an exception supported by their own income derived from bequests and by voluntary contributions. There are a very few small ones under the control of parishes, but these are now supported by the city as are Bellevue and charity hospitals and others in New York. Great complaint is made of late that, on account of the general depression in agriculture and trade for the last few years, the contributions are inadequate. This is hardly to be wondered at when the number of charities to be supported by the public without the compulsion of taxation is so large. The public seems to be doing all that could be expected of it, for the total amount of subscriptions and bequests in 1884 was \$22,250,000, or more than \$5.00 per capita. The collection taken up on the well-known Hospital Sunday amounts to an average of

\$200,000 a year ; and Hospital Saturday, when over seven hundred ladies take positions at the most crowded street-corners and give non-church-goers an opportunity to contribute to the fund, brings in \$50,000 more.

Eleven of the general hospitals have medical schools in connection with them. Those which have long been famous all over the world are among the largest. They have wards set apart for special diseases, and the amount and character of the clinical material available for instruction is unsurpassed. For example, at St. Bartholomew's there is a service of 750 beds ; of these 227 are for medical cases, 353 for surgical cases, 26 for diseases of the eye, 20 for diseases of women, and 50 for the syphilitic. The remaining 75 are for convalescents. Children are admitted at any age. In 1884 there were 7,429 in-patients, and the enormous number of 160,736 out-patients were treated at the Hospital Dispensary, while 1,210 women were attended in confinement at their own homes. Of course with such material as this the advantage to be derived from it by the students is simply a question of how far the authorities make use of it for their benefit in clinical teaching. And, according to my experience, it is in this very point that the English schools so far excel those in America. The hospitals are used as if they existed chiefly for the benefit of the medical schools, whereas, as a general rule with us at home, the students see far less of the wards than is desirable. The number of students, particularly in the larger cities, is so large and the number of schools so small, that it could hardly be otherwise. In London, however, the students are distributed among so many schools that the material at hand can be used to much greater advantage. The London student gets an amount of clinical instruction and practical experience that can be had in New York or Philadelphia only by taking, and paying for, a number of extra private courses of instruction or by being fortunate enough to obtain a hospital appointment after graduation.

The subject of medical education in England and the requirements that have to be met before a man is allowed to practice, is rather a complicated one. The road to legal medical practice as measured by American standards is not a smooth one. Every student must be registered at the time he begins his course, and he is not allowed to do so until he has passed a preliminary examination in English, Latin, arithmetic, algebra, geometry, elementary

mechanics, and one of the following studies: Greek, any Modern Language, Logic, Botany, Zoology, Elementary Chemistry. If a similar examination has been passed at a university it will be accepted as an equivalent.

Having a legal qualification to practice, and having the degree of Doctor of Medicine, are, as you know, two very different things. Degrees are difficult to obtain, and comparatively few practitioners can boast of them. It is for this reason and because of the fact that surgeons, as a rule, never try to obtain the degree of M.D., that so very few "Doctors" are met with in England. Not having the degree, they are simply called "Mister." According to an old custom, not yet out of date, many medical men practice under the license of the Society of Apothecaries, composed, of course, of physicians. This body grants the diploma of L.S.A., and the legal title of the holder is Apothecary, or Licentiate of the Society, and he is not allowed to practice under that diploma alone. The Royal College of Physicians also grants a license with the title L.R.C.P., but this, too, does not extend to the practice of surgery. This is reserved for one holding the diploma of the Royal College of Surgeons or a degree from a university. The degrees M.B. and M.D. are granted by the universities alone. In order to supply the growing demand for a single examination that would admit the student to the general practice of medicine in all its branches, the Royal colleges, which are of course not teaching bodies, but simply scientific societies having the power to grant diplomas, have lately formed a conjoint examining board. This board grants the two diplomas of M.R.C.S. and L.R.C.P., and the possessor of both is fully equipped. The fight for the reform and simplification of the present complicated system of licensing to practise is constantly going on in Parliament and out of it, but there are so many bodies jealous of their powers that a single licensing board for the whole kingdom similar to ours in North Carolina will probably never be established.

The examinations for a university degree and for that of the Society of Apothecaries are the easiest of the three above mentioned, so that a short account of the character of these two will give a fair idea of what is required of the would be medical practitioner of England. According to the regulations of the Society the candidate must have studied medicine four years, of which

three winter and two summer sessions must have been at some recognized school or hospital. The winter sessions must not be less than six months in duration, and the subjects taught in the course are prescribed. There are two examinations, the primary and final. The primary includes pharmacy and prescriptions, anatomy, physiology, an examination on the living body, general and practical chemistry, materia medica, botany and histology. The final embraces practice of medicine, therapeutics, midwifery and diseases of women and children. Certificates must be presented of having filled the requirements as to time and courses of study, of having acted as "Clinical Clerk" at a hospital, of proficiency in practical vaccination, of having attended at least twenty cases of midwifery and of having attended the class examinations of a medical school.

For the degree of Bachelor of Medicine of the University of London the regular matriculation examination in general subjects must first be passed. Next comes the preliminary scientific examination, including inorganic chemistry, experimental physics and general biology. The next trial in store for the student is the intermediate, embracing anatomy, physiology, histology, materia medica and pharmaceutical chemistry and organic chemistry. He must present certificates of having been a student at a medical school for two years, attending lectures in all branches of medicine, of having dissected during two winter sessions, and of having attended full courses in practical pharmacy, general and medical chemistry and toxicology. The final includes general pathology, general therapeutics and hygiene, surgery, medicine, obstetrics and medical jurisprudence. Certificates are required of the following work done subsequent to passing the last examination: attendance at the medical and surgical practice of a recognized hospital, including clinical lectures during two years, and, in addition, the special care of patients for six months. Proficiency in vaccination is also necessary.

If the student is successful he is now ready for practice. If he aspires to be an M.D. he must pass another examination and present certificates of having been, since being made an M.B., two years in hospital practice, or one year in hospital and three years in private practice; or of having been in private practice at any time for five years. He has probably by this time added other initials to his name by passing the boards of other bodies, and lives in the hope

of having in time still more by winning various honorary degrees until he shall glory in a string of letters that will require a well-filled font to print.

In my next I will try to give you some account of the hospitals of this great city.

KEMP P. BATTLE, JR., M.D.

HAMAMELIS VIRGINICA (WITCH-HAZEL) INVESTIGATED.—Drs. John Marshall and H. C. Wood, of Philadelphia, have made investigations, first with an aqueous and then with an alcoholic product, from *Hamamelis Virginica*. They found no toxic effects from the products; that it has no special physiological action on the vascular system; and that it has no alkaloid. There is a large percentage of tannic or gallic acid in the fluid extract, and the results which have been obtained by its use in treating hæmorrhoids and varicose veins are apparently explained by the presence of the astringent principle. The tannic acid, of course, would not come over in the distillation; therefore the much-used and still more lauded witch-hazel, and the so-called distillates of witch-hazel must depend for their virtues upon the alcohol which they contain and the faith which they inspire.—*Therapeutic Gazette*, May, 1886.

THE ACTION OF CASCARA SAGRADA UPON THE SECRETIONS OF THE ALIMENTARY TRACT.—Dr. Tschelzon (*Centrbl. f. die gesammten Therapie*, August, 1885), after a series of experimental studies, reaches the following conclusions: 1. *Cascara sagrada* is useless when prompt catharsis is desired. 2. Its purgative action is only obtained when the drug is introduced into the stomach; it has no action when injected beneath the skin or into the vessels, or when administered per rectum. 3. It does not increase the flow of saliva. 4. It causes an increased secretion of the gastric juice, the bile and the pancreatic juice.—*Medical Age*.

We congratulate the *American Medical Digest* on its improved appearance. We note with pleasure signs of prosperity in journals of the character of this one. They are scrupulously honest in awarding due credit for the articles which they copy—a commendable trait of journalism that we regret in none too much cultivated.

SUPRA-PUBIC LITHOTOMY.

Before discussing the operation for stone, he remarks that stones of uric acid, weighing 2 oz. or more, are quite capable of being crushed. Had himself crushed a uric acid calculus weighing $2\frac{1}{4}$ oz., with a successful result. Phosphatic calculi, although of larger weight, may be thus dealt with. There are, however, calculi too large and too hard to be safely subjected to lithotrity. For such stones the supra-pubic operation, as performed by Petersen, of Kiel, is strongly recommended. Sir Henry even goes further and says that he believes that this operation will prove safer and easier in the hands of most surgeons for hard calculi weighing only $1\frac{1}{2}$ oz. and upwards.

The following is the method adopted by Sir Henry Thompson in performing this operation: The rectum is first distended by an india-rubber bag, into which is thrown 12 to 14 ounces of water. A catheter is then passed, and through this an antiseptic solution is injected to the amount of 6, 8 or 10 ounces, without force. The catheter is then withdrawn and the penis encircled firmly by an india-rubber tube.

A vertical incision is now made in the middle line over the salient bladder, reaching well down to the pubes; after the linea alba and fascia transversalis have been cut through the prevesical fat comes into view, and on scraping through this with the finger-nail the bladder wall is reached. Into this is inserted a sharp hook, and thus fixed it is incised and the finger introduced. The stone is extracted by means of both fore-fingers acting as forceps, or failing in this, by forceps themselves. Neither the bladder nor abdominal wounds are closed, but a rubber-tube is left in for the first twenty-four hours, and sometimes a soft catheter is retained in the urethra, both being removed in two or three days. The patient lies on his back for the first twenty-four hours, and then on each side alternately for six hours at a time. Carbolio or boracic lint is the only dressing used. Eight cases are given where the author has performed this operation.—*Sir H'y Thompson in Annals of Surgery.*

SIR WILLIAM JENNER has been re-elected President of the Royal College of Physicians.—*Maryland Medical Journal.*

INFLAMMATION COMPARED TO A BATTLE.

Inflammation, as read zoologically, may be likened to a battle. The leucocytes are the defending army; their roads and lines of communication are the blood-vessels. Every composite organism maintains a certain proportion of leucocytes, representing its standing army. When the body is invaded by bacilli, bacteria, micrococci, chemical or other irritants, information of the aggression is telegraphed by means of the vaso-motor nerves, and leucocytes rush to the attack. Reinforcements and recruits are quickly formed to increase the standing army, sometimes 20, 30, or more times the normal standard. In the conflict cells die, and are often eaten up by their companions; frequently the slaughter is so great that the tissues become burdened by the dead bodies of the soldiers in the form of pus, the activity of the cell being testified by the fact that protoplasm often contains bacilli, etc., in various stages of destruction. These dead cells, like the corpses of soldiers who fall in battle, later become hurtful to the organism which they in their lifetime were anxious to protect from harm, for they serve as breeding grounds wherein the bacteria may germinate, and, like a pestilence and scourge, devastate the individual.—*J. Bland Sutton, M.D., N. Y. Medical Abstract—Medical Herald.*

TREATMENT OF NIGHT-SWEATS.—In the *Gazette Médicale de Paris* we find two suggestions as to the relief of phthisical and other night-sweats. They are both simple enough, and certainly merit a trial.

In the first procedure it is directed that the trunk be sponged or rubbed with a mixture of four parts of tincture of belladonna to thirty parts of water. The lotion is best applied by pouring it into the hollow of the hand and bathing the body an hour or two before the expected sweating.

In fifty cases cited, but one failure to suppress the perspiration is recorded.

The second method consists in sponging the body of the patient with a solution of eight grams of chloral hydrate in one goblet each of water and whiskey. If the sponging alone does not suffice, the patient should wear a shirt that has been dipped in the solution and then dried at a moderate heat. In the non-phthisical night-sweat of children this device is said to yield excellent results.—*Medical and Surgical Reporter.*

OBITUARY.

G. G. KINLOCH, M.D.

The tragic death of this most estimable young gentleman, which occurred in the railroad accident on the Santee river trestle, June 7th, will bring many sad regrets to the readers of the JOURNAL, to whom he is known through his excellent and interesting translations of lectures, written during his stay in Europe. His professional training, beginning under the immediate supervision of his distinguished father, Dr. R. A. Kinloch, was carried to a brilliant graduation in the South Carolina Medical Schools. After serving as house physician to the Hospital in Charleston, he went to Europe, and his pupilage in Vienna and Berlin was marked by the same energy that had given him the honors of his class in his home, and there was a promise of great usefulness in his career, stimulated by his zeal and guided by his finished education. To die, even as young as he, in the midst of a destructive epidemic, were to fill one of the rôles that falls to the lot of our profession sometimes to enact, but to be dragged down to instant death in the crash of a railway accident, adds a sadder recollection to the tender memories of the beloved dead. We beg for our readers and ourselves to offer our sincere sympathy to his bereaved family.

W. O. BALDWIN, M.D.

We regret to announce the death of Dr. W. O. Baldwin, of Montgomery, Alabama, on Sunday, May 30th, in the 68th year of his age. Graduating at 19, from the Medical Department of Transylvania University, Lexington, Kentucky, he entered immediately into the practice of medicine in Montgomery. He was eminently distinguished among the physicians of his State and the United States, and has been a leader deserving the trust and esteem of his professional friends. He was a member of the Medical Association of the State of Alabama, an Associate Fellow of the College of Physicians of Philadelphia, and a member of the American Medical Association, of which body he was the President in 1869.

A CASE OF AMPUTATION OF THE THIGH UNDER COCAINE ANÆSTHESIA.—Ether being attended with alarming symptoms, cocaine anæsthesia after the method of Corning was exhibited in a case of a man who had received a compound fracture and in whom amputation at the thigh was demanded. The operation by antero-posterior flaps was done, no pain being experienced at the first incision through the integument, the second through the deeper tissues to the bone, the transfixion of the limb, the trimming of the flaps or the insertion of the sutures, but some pain was felt when the bone was attacked.—*T. R. Varick, M.D., in Annals of Surgery.*

READING NOTICES.

MR. L. CHAMBERLAIN :—Dear Sir :—I have on several occasions recommended your patent Water-Closet Seat with a decided benefit to my patients.

Truly yours,

Tarborough, N. C.

H. T. BASS, M.D.

—(o)—

WM. E. BURNETT, M.D., Roland, Ill., says :—Celerina, as now prepared (Rio Chem. Co.) far excels any other formula as a nerve tonic and vital reconstructor that I ever used in my practice. It acted like a charm in two patients who came to me for treatment, one of whom was an old lady, fifty-five years old suffering from dyspepsia of long-standing; after the usual routine of remedies had been used to no effect, and having seen Celerina recommended by some of the medical journals, I concluded to give it a trial. After using the mixture one week she began to improve, and to-day is in better health than for twenty-two years. Second case—by using Celerina one month, I dismissed a patient cured, suffering from nervous exhaustion. I would not be without it in my office.

—(o)—

DR. LIVEZEY writes : “While wintering in Florida I met with my annual patient, a young lady of twenty-eight, from Chicago, who was sent hither three or four years ago in order to pass out into the “spirit land” comfortably, who now being troubled with poor appetite, a slight but distressing nausea, great debility, irregular menstruation, excessive cardiac action on the least exertion, etc. I ordered 1 oz. bottle of Lactopeptine of the N. Y. Pharmacal Association’s manufacture, and she improved at once. Soon after she met a lady friend, who told her she ought to take Lactopeptine, stating what wonders it had done her, who was troubled “just the same way” (of course). “Why, bless me,” said my patient, “that is just what my doctor prescribed for me, and I am doing nicely.” By the time she finished the small vial she declared she never felt better in her life, her appetite being regular and everything O. K.

N. B.—She has taken since Lactopeptine, Elixir, Calisaya, Iron and Bismuth, with excellent results.—*The Medical Summary.*

NORTHWESTERN LANCET.—*Editor of Northwestern Lancet*.:—Not long since I had brought to me a child of six months, suffering from the following symptoms :

Constipation, at times irregular action of bowels, regurgitation of food and an asthmatic cough. Its mouth was full of thrush sores, and its appearance one of poor nourishment.

It had been given a great number of Infants' Foods in vain, one of which I prescribed myself.

By means of mild medication, directed towards the cough and stomach, something was accomplished. Finally I gave "CARNICK'S SOLUBLE FOOD," and had the satisfaction of having it retained, and at last accounts the child was doing nicely.

I am inclined to think this food is worthy of attention on the part of the profession.

It recommends itself in that it contains caseine, rendered soluble by pancreatine, starch converted into dextrine and maltose. Hence it requires but little preparation, and that is so simple that mistakes cannot occur.

It requires no addition of milk.

It has the advantages and none of the disadvantages of the many foods now in the market, and forms a nearly physiological substitute for mother's milk.

Very truly,

St. Paul, June 1, 1886.

C. F. DENNY.

—(o)—

VALUABLE SUGGESTIONS IN THE USE OF LACTATED FOOD—From the celebrated medical authority, J. Milner Fothergill, M.D., member of the Royal College of Physicians of London; Senior Assistant Physician to the City of London Hospital; Associate Fellow to the College of Physicians of Philadelphia.

110 PARK ST., GROSVENOR SQUARE, }
LONDON, W. ENGLAND, November 13, 1885. }

MESSRS. WELLS & RICHARDSON Co. :

GENTLEMEN :—Having requested me to give you my opinion, as a food expert, upon your "Lactated Food," I do so herewith.

You state that it contains "the purified gluten of wheat and oats, with barley diastase and malt extract combined with specially prepared milk sugar"; in other words, that it is self-digestive as regards the conversion of insoluble starch into soluble dextrine and maltose. My experiments with it lead me to hold that this is cor-

rect. The food then contains carbo-hydrates, some albuminoid matter and the various salts in grain, notably phosphate of lime. Such food can be added to milk and treated in the manner you describe in your leaflet. So prepared with milk, it forms an admirable food for infants and dyspeptic persons who require very digestible aliments. But it has a wider range of utility. The body-temperature is kept up by the combustion of grape-sugar. Grape-sugar is supplied from carbo-hydrates, either the insoluble starch or the soluble sugar. Starch forms a great portion of our food and is converted into grape-sugar within the body. Where the system is unequal to the digestion of starch, as in feeble digestion, or conditions of acute disease, then predigested starch must be furnished to the organism. Otherwise the system will perish of exhaustion, just as a fire dies out when its fuel is consumed. Beef-tea contains nothing which can form grape-sugar, and in fact is a pleasant stimulating beverage or food adjunct, but without value practically. (For what food value it has is so infinitesimal that it is not worth counting). But when it has added to it a food such as your Lactated Food, it has a distinct measurable food value. Consequently such food should be given with beef-tea, and the compound forms a valuable food. When Lactated Food is placed in water hot enough to be sipped a rapid transformation of the starch remaining in it (by the diastase it contains), goes on; and a nutritive fluid is the result which requires but a minimum of the digestive act. Such fluid can be flavored and drank as a nutritive beverage, specially acceptable in febrile conditions. Flavored with lemon, ginger, cloves or other flavoring agents to give variety.—a matter far too much neglected in the treatment of the sick—it can be largely used. Or wine, either red wine, as claret, or sherry or port, can be added to it when a little stimulant is required, and brandy when a stronger stimulant is indicated. The resort to farinaceous matters, predigested, must become greater and greater as our knowledge of digestion and its derangements waxes larger. It is not merely in the case of feeble infants that such predigested starch and milk sugar are indicated and useful; persons of feeble digestion require these soluble carbo-hydrates which they can assimilate. But to my mind an equally great matter is the feeding of persons acutely sick, and especially where there is pyrexia, who now are allowed to perish of inanition on the mistaken conviction that beef-tea is a sustaining food. It is in the sick room that soluble carbo-hydrates have a great future before them.

J. MILNER FOTHERGILL, M.D.

NORTH CAROLINA MEDICAL JOURNAL.

THOMAS F. WOOD, M. D.,
GEO. GILLET THOMAS, M. D., } Editors.

Number 1. Wilmington, July, 1886. Vol. 18.

ORIGINAL COMMUNICATIONS.

ADDRESS OF JOSEPH GRAHAM, M.D., THE RETIRING
PRESIDENT.

(Delivered before the Medical Society of North Carolina, at New
Bern, N. C., May 20, 1886.)

Gentlemen of the Medical Society of the State of North Carolina:

To-day we chronicle another year in the life of this Society. Having doffed for the nonce your professional harness, and ceased awhile your ministrations to the sick and suffering, you have come together from all sections of the Old North State, hoping to enjoy (to many of you) the only respite from labor which you experience during the year. And in this spirit I am happy to greet you here to-day, and express the wish that this meeting shall be to one and all, not only a source of much pleasure, but of genuine profit also.

The annual assembling of so many toilers in a common vineyard can but be productive of ties of friendship and much social enjoyment. On these delightful occasions it is our privilege to grasp hands, look into the faces and speak the words of friendship to many responsive hearts whom we can meet but once a year.

The value of such felicitous social intercourse and the being brought face to face with the inner-man medical, should not be too lightly estimated. It raises our appreciation of our adopted profession, creates an *esprit du corps*, and imbues plenteously our hearts with brotherly love for our comrades who are warring so nobly against misery and death.

Having alluded thus briefly to the social advantages of these meetings, we come now to speak of the value of *organization*, and the *duty* which each individual member owes to this Society.

In the accomplishment of marked success in any particular line or calling in life, we must necessarily look to the *associated action* of its followers. That high order of genius which rises above all obstacles, and, single-handed, is able to triumph, falls to the lot of exceedingly few. Hence we cannot afford to rely upon our independent and individual efforts, but must associate ourselves with those whose study and practice conform to our own.

In medicine, not only in the advancement of the individual physician measurably dependent upon association, but the science itself must wane without its aid. And the condition of the Medical Society of any State points unerringly to the character and status which the profession enjoys in its commonwealth.

The State Medical Society is an organization the usefulness of which is in direct proportion to the interest manifested in it by the rank and file of the profession. Hence a great duty rests upon us all, lest by indifference and neglect we allow it to fail of that high ideal of utility which every member should set before himself. The first step in the path of duty is punctuality in attendance upon its conventions. But few excuses should be counted sufficient to warrant a member's absence. He can but be benefited by contact with his brother practitioners of the State, if he but erect for himself a high standard of professional usefulness, and scorn any motive lower than the highest in any work he may find to do. It must be said to their credit that, if you desire to find the hard-worked men of the profession, the busiest practitioners, the most successful physicians and surgeons, and those who enjoy the greatest confidence of their several communities, you must go to their conventions. At the post of duty are ever to be found the leaders, as well as the earnest seekers after knowledge. Show me the man who is always too busy to attend the meetings of his Society, and I

will point out to you, with very rare exceptions, one (granting the honesty of his excuse) who is very slipshod in the prosecution of his work. Let such an one be not deceived. He is growing blind to his own interests, just in proportion as indifference to professional obligations takes possession of him.

Lord Bacon has well said : "I hold *every man* a debtor to his profession, from the which as men of course do seek to receive countenance and profit, so ought they of duty to endeavor themselves, by way of amend, to be a help and an ornament thereunto."

This is a day of progress, and the spirit of advancement is abroad in the land, not only outside, but within the medical profession as well, and he who keeps himself abreast of the foremost will always be the man of success, verifying the adage that "Everyone is son of his own works."

The high standing which this Society has thus far attained, of course, should be a cause of congratulation among ourselves. But one must not rest content here : our watchword must be "Onward ! upward ! till the goal we win !"

The success which we have achieved in the past must be but the incentive which shall goad us on to higher plains and nobler deeds—to greater excellence in performance of duty, and more exalted ideas of the influence which a thoroughly united medical profession can and must wield upon the body politic. We see this influence, but dawning, as it were, in the recent enactments of our State Legislature (very meagre, it is true), in behalf of our State Boards of Medical Examiners and of Health. And this much is the fruit of the organized efforts of a very *few*, more zealous than the majority. We hail it, therefore, as a faint foreshadowing of the great results which are in store for us when we shall have become a truly united profession, alive to our own interests and ever mindful of those of the public. But as the *individual* never rises higher than he aspires, so also will the usefulness and influence of the *profession* be regulated and gauged by that standard which its body corporate set up for it.

Then let us cast about and consult among ourselves as to the methods best calculated to insure that standing and weight among our fellow-citizens which our offices as conservators of their health and well being so justly entitle us. How much soever we may differ as to the *modus operandi*, I am satisfied all will be agreed.

upon the strength of union. We must enlist under one banner every physician in the State who is eligible to membership in this Society. We must bring into its fold or under its control every physician, as far as we can, "who was practising in the State prior to April 15th, 1859—all those licensed since that date by the State Board of Medical Examiners, and any who have diplomas from regular medical colleges prior to January 1st, 1880." I would suggest to you, then, the propriety of taking some immediate and decisive steps for enlarging the influence and usefulness of our organization. And looking to that end, it would be well for this Society at its present meeting to adopt some system which will insure the revival of county societies wherever they have heretofore existed, and the establishment of one in every county where there has been none, until these auxiliary links shall form a chain of professional brotherhood reaching from the mountains to the seaboard, and embracing every reputable practitioner in the State. Paramount to all other objects must ever stand the *most efficient possible organization* of the medical profession of the State, for upon it depends our every success, whether scientific, literary or legislative. To accomplish this it would be well that our Constitution be remodelled, so that the State Society shall have power to charter and control all these county and local societies in the State and to make rules and regulations for their guidance in so far as pertains to the welfare and honor of the general profession—not, however, interfering with matters of self-government and of purely local interest. In this way only can this Society even exert its proper influence on the profession, both individually and collectively in the promotion of a high standard medical education, the fostering of high-toned ethics and a generous rivalry in the elevation of provisional character and interests. Thus we will be enabled to mould public sentiment and procure wholesome legislative enactments for the preservation of our own lawful privileges and the protection of the people themselves against the wiles of ignorant pretenders and impudent charlatans. The advancement of scientific research may be thus furthered, also, by systematic reports on climatology and the etiology of disease in the various sections of the State, together with its medical botany and the therapeutics of the same. Such a thorough organization as is here contemplated, I am aware, will be difficult, and can only be accomplished after the surmounting of many

obstacles and at the cost of much time and some money. But how does it differ here from any other enterprise of value? Great prizes are estimated by their cost, and are the reward of well-directed, persistent effort, tempered with judgment and fired with that zeal which always insures success.

Possessed of an intelligence which cannot fail to appreciate the magnitude of its importance, this body of medical men must see at a glance that thorough organization is the keystone to success. Without it we can accomplish but little, with it all things are possible to us, and our usefulness and progress will be measured by its approach to perfection.

The vast area of our territory, extending over nearly one hundred counties, very many of which are as yet difficult of access on account of lack of railroad communication, will hinder much our progress for a time. But the rapid march of internal improvement will soon furnish sufficient travelling facilities, and our difficulties will melt away before resolute purpose and self-sacrificing devotion to duty, like snow before the genial rays of the noon-day sun. I have an abiding faith that, once enlisted, and with a full concert of action among themselves that the medical profession of this State can and will compass this great work, and thus lay the foundation for a measure of usefulness far surpassing the brightest dream of the most sanguine.

With the profession in each county organized under a charter granted from this central legislative power, and working in concert with and under its guidance as the law-giver, wise and prudent counsels will prevail, selfish ambitions be laid aside, and all the power of concerted action will be felt in the advancement in honor, dignity and influence. With this central controlling body, with its numerous branches permeating every township and hamlet in the State, the greatest possible facilities for redressing wrongs, protecting our own rights and presenting work of all kinds will have been afforded. The unselfishness of our purposes and the self-sacrificing devotion to duty, which I am proud to say have ever characterized the profession in all ages and in all lands, will become thoroughly manifest, and must necessarily address itself favorably to the honest, sober judgment of our fellow-citizens. They will be convinced that we seek no legislative enactments for our own exclusive benefit; but that, true to the high calling to which we have been called, we

seek first the welfare of the community at large, hoping to be rewarded only as they are benefited. But this ideal organization can only be obtained through county societies. And these county societies should be clothed with all necessary power for the exercise of immediate jurisdiction over the medical profession and have a special care of all medical interests in the several counties. Each one should form one of the component parts of this Society and be entitled to equal representation in this medical legislature, from which all laws pertaining to the governmental control of the profession in the State shall emanate.

We would not appear to have lost sight of the cultivation of the science and the art of medicine. Not at all. We are only preparing for a more vigorous and systematic prosecution of such investigations. We desire to organize and drill our forces for the work before us—to make their minds familiar with the obligations and responsibilities resting upon them, in order that they may see clearly the path of duty, and pursue it with a steadfast purpose, which shall teach them to be true to themselves and have a care for the welfare of the whole profession. To this end I recommend for your consideration the appointment of a committee whose duty it shall be to examine the Charter, Constitution and By-Laws of this Society and see what changes, if any, are needed to advance the medical interests of the State to the highest point of usefulness and perfection, and to report their conclusions to this or the next annual Convention.

For about one-third of a century has the State Medical Society been striving for the prosperity and general welfare of the profession, and, it has been truly said, with a fair measure of success, having accomplished much in which we may take just pride. But we should be alert for every improvement, and it might be well for us to examine from time to time the constitutions and rules of action of similar societies in some of the foremost of our sister States, as well as their State laws pertaining to the medical profession and medical interest therein. Notwithstanding the *New York Medical Record*, in a recent editorial, has been pleased to style North Carolina the "banner State in respect to the legal safeguards thrown about medical practice," we should "not sleep upon our laurels," for if we do we will awake in the not distant future to find some of our younger, but progressive sisters outstripping us.

After some correspondence and a limited examination of some of their plans of operation, I am convinced that the great draw-back to medical progress in this State is the want of consolidation into one harmonious whole. Of about fourteen hundred practitioners in the State this Society cannot boast even an acquaintance with more than about one-third of the number, while in the State of Alabama (and I mention her in the spirit *palman què meruit ferat*) the profession in nearly every county has been enlisted into one army of workers, who have accomplished more in the same time than those of at least any other Southern, and I had almost said Northern State also. But this great work has required for its accomplishment much self-sacrificing and earnest labor and a considerable expenditure of money by their Medical Association. In about twelve years, I think, they have expended about forty thousand dollars, in addition to a vast amount of persistent, united, well-directed individual and general effort. But, in regard to the large sum of money, it must be noted that, in that State, the Medical Association, besides its immediate professional interests, is the Board of Medical Examiners as well as the Board of Health also, and much of this money has doubtless been expended in furtherance of the work of the latter. Be that as it may, in annual installments it was but a light tax upon the profession in that length of time. I am satisfied that we can do as much as they if we once get our long list of scattered physicians enrolled in a well-disciplined body, with duty as our watch-word and success our shibboleth.

The talent and spirit of self-sacrifice is but dormant in our ranks, awaiting only the call to action and a full understanding of what is sought to be accomplished.

After organization, perhaps the next most interesting consideration to which I could beg your attention would be, how to make our sessions most entertaining and profitable.

It is always pleasant, and attended with more or less profit, to listen to reports of well-selected and carefully recorded clinical cases; but in addition to such volunteer material, I think there should be one day set apart for the discussion of subjects which, having been selected prior to the meetings, should be sent out to gentlemen who will prepare to discuss them. To accomplish this I would recommend that the President be empowered to select a

conductor of debate, whose duty it shall be to select a subject or subjects for discussion, and shall open the debate on each with the privilege of the concluding speech.

In presenting his subject the conductor shall do so, not by reading a written essay upon it, but off-hand, in as concise a manner as possible, without other written help than perhaps a few short notes. He must present one subject at a time, and it shall be before the Society, till all who desire shall have spoken to it, when he may, if he chooses, conclude the discussion of it by making any reply or explanation he may deem necessary. One subject having been thus disposed of, he opens another to be debated in the manner just prescribed, and so on till he has completed his list. It should be the duty of the conductor to furnish the Secretary, three months prior to the meeting of the Society, a list of the subjects for discussion, in order that he may have them embodied in a printed circular. This circular should contain, also, as far as the Secretary can obtain it, a resumé of all the other papers and business likely to come before the approaching Convention. In this way members may become familiar with all the subjects likely to be discussed, and will come prepared to take an active part in the debate. This general debate is not intended to bring forth long *written* lectures on special diseases or medical questions either, but to enable the members for mutual instruction to set forth their views, in short, off-hand speeches, on current medical topics, by detailing personal experiences in the use of new remedies or any original observations in reference to the nature of disease and the therapeutics adapted thereto, or any facts or peculiarities of epidemic or ençemic influences which they had noted, and to bring out the prominent features of professional experience and convictions in a concise and informal manner. And each member should, immediately after adjournment, and while fresh in his memory, reduce his remarks to writing and hand them to the Secretary in order that they may be incorporated in the transactions of the meeting. Let him also be particular to accompany them with such explanations as will enable the Secretary to properly and intelligently place them in the report of the debate. I would suggest, also, that they occupy only one side of the paper, to save transcribing for the printer. An arrangement more or less like the above, especially as regards members being made acquainted with the subjects for discussion prior to the assembling of the

Convention in order that a number of gentlemen may be prepared to give their views and experiences obtains in very many of the best medical societies, both North and South, and anyone who observed the great lack of debate in many of our meetings has been forced to the conclusion that the desired usefulness of these conventions has been very much crippled thereby. Being not much accustomed to public speaking, most physicians will be benefited by this allowance of time for preparation and arranging of their thoughts, in order that they may speak more fluently, without overlooking many matters of interest. It may, perhaps, have been the original purpose to have the annual essay as the subject for discussion; but however the intention may have been, it has failed in practice. It has become the custom for the essayist to select his own subject, and it has never been made known to the members till he announces it when he rises to present it. How much more profitable and better would it be to have several other gentlemen, having been made acquainted with the title of the paper a few weeks prior to the meeting, to discuss it, giving the Society the benefit of their own experiences and the details of certain procedures and remedies which had been crowned with success in their hands. But even this plan would be inferior, I conceive, to the one I suggested--of an unwritten statement of the subject and an off-hand discussion of the same, in speeches of five or ten minutes duration. The subjects for this general discussion should *preferably* be such as occur especially to the North Carolina practitioner, and should embrace any peculiar features brought out by climate, latitude or habits of the people, and any conditions not generally noted in the text-books. Thus we would lay the foundation for the study of disease as it occurs among ourselves, modified, perhaps, by our climate, and treated by remedies more or less influenced by locality and continued peculiarities of its people. In this way could be saved from oblivion much of the vast fund of useful clinical experience of the country practitioners, as we are all denominated by our metropolitan brethren.

It is certainly true that, above all, clinical facts are always valuable, especially since we have been thus far able to solve but few of the problems of medical science. And there is but one way by which we can preserve our work in such shape as to make it available to ourselves and really interesting to the profession for intelli-

gent, logical deductions, and that is by the accurate and careful keeping of systematic *case records*—recorded daily, and in many instances at the bedside, while the facts are under observation, and with the aid of all the modern appliances with which this age of progress has supplied the physician.

The completeness and portable shape in which the paraphernalia for accomplishing this work is offered to the profession, including, as it does, the clinical thermometer, urinary test-case and blank record sheets, has reduced the labor almost to the minimum—a matter of no small moment to the busy practitioner. I fear that most of the older heads among us have gone too far in the grooves in which we started for us to throw off the shackles of habit and do our part in full as we should. But I suggest to our younger brethren, alike the pride and hope of the Society, that they begin at once to keep systematic case records of their daily work. They will find that it begets, among other advantages, more careful examinations, a greater precision in diagnosis, a more intelligent comprehension of the action of remedies, a clearer insight into the etiology of disease, as well as its symptomatology, its modes of attack and its tendencies towards death or recovery. But few of us are favorably situated for original scientific work, but everyone has a duty before him in the preservation of valuable clinical facts. And just here I am reminded of another of our sins of omission, and one of which we are almost unanimously guilty, and that is a failure to do our part towards supplying material for our own NORTH CAROLINA MEDICAL JOURNAL. The most of this can very properly be charged to the ill habit of not keeping accurate notes of our experiences. If every physician present, seeing that

“Ill habits gather by unseen degrees,
As brooks make rivers, rivers run to seas.”

would resolve to shake off this lethargic indifference and begin immediately upon his return home to make daily records of all his cases, he would soon have an accumulation from which he could easily select something of interest and value to the readers of the JOURNAL. It is a shame upon the profession of the State that they have done so little, by their pens, at least, to help hold up the hands of its deserving editor, of whom it would be no fulsome laudation to say that he has done more for the advancement of medical science

and the elevation and prosperity of the profession of North Carolina than any physician who ever lived within its borders. When you have taken this first forward step, the day will not be far distant when the NORTH CAROLINA MEDICAL JOURNAL will begin to reflect credit upon the profession of the State, as it has ever done upon its editor. It is not for lack of ability that State talent has been so much more conspicuous by the absence than the presence of home articles in the JOURNAL, but on account of procrastinating indifference and careless habits of trusting to over-taxed memories, which fail us, for some of the most important and interesting points when we would put them in shape for print.

A regular and systematic habit of note-taking, then, would soon overcome that mistaken modesty and indisposition to attract attention, so characteristic of all North Carolinians. Fortified by accurate records of all the principal features of the case, you will feel emboldened to tell the truth. It is true that elegance of diction and ornate style may not at first characterize your productions; but lack of these cannot mar the value of well-observed facts and sound principles which your well-measured experience has inculcated. Then let each one resolve to *do* and keep a record of it, since "We live in deeds, not years, in thoughts, not breaths."

At your last Convention a change in the By-Laws of the Society was effected relative to the Committee on Nominations by the adoption of the following resolution offered by Dr. R. H. Lewis, of Raleigh :

Resolved, That the members of the Nominating Committee be elected, one from each Congressional District, by the members present on the night of the second day, and in the absence of any member from any district, the vacancy shall be filled by the President.

At the present session, for the first time, you will be called upon to put the new law into practice. And I need hardly remind you that this is by far the most important committee of our organization, and great care should be exercised in the selection of its members; for upon the wisdom and prudence with which they act will depend largely the welfare of the Society. With an eye single to this, they should be swayed in their choice by neither fear, favor nor affection, but should canvass thoroughly the fitness of every name presented for their consideration. This, of course, will be done in all fairness and good-will, and with malice toward none;

but frankly and freely, in the full assurance that all the deliberations and discussions of this committee are strictly private and confidential. Its *conclusions* are alone admissible for report outside the doors of the committee-room, and that not till they have been published to the Society through its chairman. With its deliberations stripped of this confidential privacy, the Nominating Committee would be unable to arrive at conclusions which would redound to the best interests of the Society. The necessity for selecting officers from among the men who have been for the longest time *working* members of the Society, and consequently well imbued with the true purposes of the organization, cannot be too strongly inculcated.

The growing importance and influence of your Board of Medical Examiners is well attested by their report of their work for the year just closed. At their meeting during the last session of the Society, in Durham, there were present for examination the unprecedented class of one hundred and one. Of this number eighty-four received permanent and four temporary licenses, while one withdrew and twelve were rejected. In Raleigh, August 24th, sixteen candidates applied, thirteen passed satisfactorily and three were rejected. The Board then adjourned to Asheville, August 27th, for the greater convenience of the profession in the trans-montane section. There they met a class of thirty-seven, and of these, after careful examination, twenty-two were found worthy to be licensed, seven were allowed to withdraw and eight were rejected. From the above figures we find that the applicants during the year aggregated one hundred and fifty-four. Of this number one hundred and nineteen fulfilled the requirements of the law and received permanent licenses, while four were granted a temporary certificate (which the law says shall only hold good till the next regular meeting of the Board, when the candidate shall undergo another examination), making a total of one hundred and twenty-three who were wholly or partially successful, while the eight who withdrew must be added to the twenty-three rejections, making thirty-one found unfitted to receive the State's sanction to practice medicine. But, really, in passing upon this report, while all withdrawals, evidencing, as they did, undoubted deficiency, must be added to the rejections, swelling the number very properly to thirty-one, yet we can hardly in fairness add the four temporary to the one hundred and nineteen permanent licentiates. This being the case, we find that, in truth, one

hundred and fifty applied, of whom one hundred and nineteen were successful, while thirty-one were unsuccessful. In other words, the year's work shows that 79½ per cent. received license, an 20½ per cent. were rejected, or that, not quite one in every five applicants were found duly qualified to enter upon the duties of the profession.

The law in regard to the qualifications of those who may go before the Board for examination for license to practice medicine in North Carolina is deficient in one very important particular, viz: in not requiring the applicant to produce his diploma of graduation from some recognized regular college before being examined. We should try and have this amended by the State Legislature as one of the steps towards a higher standard of professional excellence. From an experience on the Board immediately preceding this, and from conversations with its members, I know that a considerable number of "one-year men," and, indeed, one or two who had never attended any college at all, have been among those asking to be licensed. The licensing of such men, even though they may have acquired enough technical information on general branches to get the votes of a *majority* of the members of the Board, can but tend to lower the standing and influence which should be accorded the medical profession. Instead of a *majority* of the votes (independent of the importance of the claims they represent) entitling one to the license, the law should be so amended that it shall read "that less than five members concurring in the qualifications of the applicant, he is rejected." It is to be noted, also, that where a candidate succeeds in obtaining only *four* votes, the bare legal majority, that they are almost invariably upon the most unimportant branches, and he really ought to be rejected, and would be, but for this flaw in the legislative enactment. In this connection, it is gratifying to see that medical practice laws have received the sanction of the highest courts in several of our sister States, and that their validity and constitutionality have been affirmed in recent decisions on the subject; thus establishing the fact that boards not only have the power to grant, but for sufficient cause ("unprofessional conduct") to rescind licenses as well. A decision in an Illinois court, among other points, goes on to cite that "the board, in the exercise of its discretion, cannot be controlled by judicial tribunals. Unprofessional conduct and criminal conduct are not synonymous. The law makes the State Board of Examiners the judge of the former. Equity will not interfere to control its judgment."

Says the New York *Medical Record* of a recent date: "Twenty-nine States and Territories have passed laws to regulate medical practice. In five of these States, viz: Alabama, Arkansas, Mississippi, North Carolina and Virginia (all Southern States, it will be observed), diplomas are not sufficient to give a man a legal standing. He must meet the requirements of the State Board.

In respect to the legal safeguards thrown about medical practice, North Carolina seems to be the "banner State, and she seems to show her faith by her works."

Thus we see that the good work of the Medical Examining Board, begun here in 1859, goes bravely on, and is gradually spreading its beneficent influence to many other States.

It will be unnecessary for me to say anything to you concerning your Board of Health, as they will make a specific report at the joint meeting with the Society at its present session.

Several other subjects need the attention of the Society, but I cannot trespass upon your time longer, and my successors will doubtless call attention to them, as they may occur to each.

An address of this character, I know, can hardly be said to be complete without some allusion to the great importance of a higher medical education. But neither time nor space will admit of my going into this extensive subject again this year, after the able and extended remarks in the Message of my honorable predecessor.

And now, gentlemen, the Annual Message is before you, with its countless imperfections, of which none can be more conscious than I. But if it shall be in the least instrumental in advancing the usefulness of this Society or in elevating the profession in North Carolina, I shall have succeeded in my undertaking.

You have my thanks for your kind consideration, exhibited in your patient attention, and I must remind you, in conclusion, that

"Whoever thinks a faultless piece to see,
Thinks what ne'er was, nor is, nor e'er shall be."

THE SEQUEL OF TWO GREAT OPERATIONS.—At a recent meeting of the Basle Medical Society Professor Socin, of Basle, showed the stomach from a woman in whom he had performed, first, resection of the pylorus, and, subsequently, a year later, gastro-enterostomy. The patient died, from return of malignant disease, eighteen months after the second operation.—*Medical Record*.

THREE CASES OF LAPAROTOMY, WITH RECOVERY.

By CORNELIUS KOLLOCK, A.M., M.D., of Cheraw, S. C.

Case 1.—V. D., a dark mulatto; aged 30; married six years; has had one living child and a miscarriage at the fifth month of gestation; small in stature; height four feet nine inches; never weighed more than ninety pounds. Her general health has always been good. About a year previous to the miscarriage a fullness was observed in the left iliac region, and soon afterwards a hard lump was felt on that side. The patient increased rapidly in size, and at my first examination of the case, about two years after the miscarriage, she was enormously distended. The girth at the umbilicus measured 59½ inches. There was considerable emaciation; facies ovariana very pronounced. Drs. Lane and Napier had seen the case and twice resorted to tapping. A large quantity of viscid fluid was removed at each operation, as much as thirty quarts at one time. This afforded much temporary relief, but the fluid was soon reproduced. When I first saw the case, about seven months subsequent to the last tapping, the distension was greater than it had ever been.

There was some displacement of the uterus; it was drawn high up in the cavity, was retroverted and inclined to one side, was somewhat larger than normal, the cavity measuring fully three inches. Menstruation had been rather too free, but never so excessive as to create much discomfort. The abdominal veins were not in a varicose condition, but that is not an unerring pathognomonic sign; for though frequent in ovarian cysts, it is not universal. No fluid was drawn at this examination, for Drs. Lane and Napier were unable to get any through a large aspirating needle, and had to use a large size trocar, through which it flowed very slowly. Taking everything into careful consideration and estimating the value of all rational and physical signs, I concurred with Drs. Lane and Napier, and pronounced it a cyst of the left ovary.

On the 20th of October, 1885, the operation was performed, with the assistance of Drs. J. L. Napier, D. M. Prince, W. J. David, W. H. Jennings, I. A. Smith and R. Cox, Dr. Jennings presiding over the anæsthetic, chloroform. An incision of five inches in length was made in the median line below the umbilicus and the peritoneum

reached. More than the usual quantity of fluid was found in the peritoneal cavity. The abdominal walls were greatly thinned by excessive distension long-continued. The fibres of the recti abdominal muscles were separated and spread out like a fan. It was impossible to proceed canonically at this stage of the operation, as all the usual landmarks, the fatty layer under the skin, and the aponeurotic and intermediate tendinous or muscular structures, were so obliterated by pressure and distension as to cease to act as guides to the knife. There was very little bleeding, owing to the thinness of the abdominal walls, which seemed to be less than one-eighth of an inch thick.

As soon as the peritoneum was opened and the sac revealed, I saw the error in diagnosis. The dark hue and vascular condition of the sac convinced me it was not an ovarian cyst. Emmet's trocar was introduced and the sac evacuated. The fluid was of a dark brown color, indicating some admixture of blood, interspersed with streaks of a greenish tinge. There was no appearance of pus. The fluid was so thick, it flowed as would molasses or honey in cold weather. No sound could be heard as it poured into an empty vessel on the floor. A careful microscopical examination failed to detect the ovarian cell in the fluid. But that proves nothing. Formad says the ovarian cell is not always found in fluids from ovarian cysts, and is sometimes seen in fluids taken from cysts not on the ovaries.

The adhesions were formidable, extending from the pelvic cavity to the diaphragm. Some of them were large bands of vascular tissue, requiring one or more ligatures. A plexus of largely dilated mesentric veins also adhered to the cyst. Fortunately there were no adhesions to the liver or bladder, and those on the bowels were comparatively slight and easily broken up. This tumor, which proved to be a fibro-cystic myoma, was attached to the posterior part of the fundus uteri, a little to one side, near the entrance of the left fallopian tube. It was not fastened directly to the body of the uterus, but was held by a pedicle about 2½ inches long, which was a broad, thick band of vascular tissue, composed of a double fold of peritoneum, fitted in with vessels and lymphatics. How to ligate this mass with full assurance against hæmorrhage was a question for serious consideration. Knowing that this large band, with the immense sac above, must be generously supplied with blood-vessels, the number, size and relative position of which it would be well to ascertain before proceeding farther, I first applied a strong clamp and cut the pedicle above, near the sac. This

being done, two large arteries and a smaller one presented their open mouths. They were drawn out separately, and each was tied with silk ligature. A double ligature was then passed through the pedicle, between the arteries and firmly secured on each side. The cavity and peritoneum were cleansed and the incision closed with nine white silk ligatures. As there was much oozing from the multitude of vessels ruptured in breaking up the adhesions, a drainage-tube was put in, which did valuable service for three or four days.

The cyst weighed 48 pounds. The operation occupied 56 minutes. The patient was a good deal exhausted and very much troubled with nausea for a while, but reaction soon took place. She was comfortable the rest of the day and slept well till the latter part of the night, when she became very restless. Dr. J. L. Napier visited her the next day at 10 A. M., and found her in a very unpromising condition. The abdomen was considerably distended and tympanitic, pulse 150, temperature 106°, tongue dry and patient listless—almost unconscious. A pint or more of hot carbolized water was thrown into the cavity and drawn out. This was repeated several times till the water came away clear. In less than twenty-four hours the patient brightened up and was in every respect materially improved. Pulse was reduced to 100, temperature to 99. Patient is now (seven months since the operation) perfectly well.

I must express my thanks to all the gentlemen who aided me in this formidable operation, all of whom rendered valuable assistance. I was, however, under special obligations to Dr. J. L. Napier, who watched the case and conducted the after-treatment for several days in my absence. Faithful and diligent in attention, he displayed judgment and discrimination worthy of a veteran in the work.

Case 2.—Mrs. R. S. P., white, aged 31, married 13 years; has had two children, youngest 10 years old. Mrs. P. was married at 18 years of age and gave birth to her two children in three years time. Her general health was good for seven years after her last confinement, at which time menstruation began to be irregular as to quantity—was too free and lasted from four to six days, and was accompanied with troublesome uterine tormina. This condition, except in an aggravated form, continued for three years, each menstruation being more profuse, and the uterine pains becoming unbearable.

At the time of my first examination of the case the menstrual flow was at times more like a post-partum hæmorrhage, and lasted from

nine to fifteen days. The patient was greatly exhausted—much emaciated; the skin waxy white; the face and lower extremities cedematous. She was much depressed in spirit, and had abandoned all hope of ever being well again or even living much longer. In this she was not far from right, for she had lost about as much blood as she could spare. Superadded to this, the violent pelvic pains she was called upon to endure every four weeks had brought her to that state of exhaustion where nature must soon succumb. She could not possibly have lasted more than two or three months longer.

The emaciated condition of the patient aided much in making a clear and satisfactory diagnosis in the case. There was no displacement of the uterus, no flexion of the cervix; the sound passed readily into the cavity to the depth of two and seven-eighths inches. At the fundus, a little to one side, near the right horn, I discovered an interstitial fibroid, about as large as a medium size orange. It was oblong in shape, the lower extremity reaching the cervix. This, the patient informed me, had been perceptible to the touch for the past six months. It had doubtless been growing for several years, and was the cause of the trouble that was sapping the foundations of her life. Feeling assured in my own mind that nothing but surgical interference in this case could afford any relief, and that if Batty's operation, which he properly styles "Normal Ovariectomy," was ever justifiable, it certainly was in a case of this kind. The menopause generally hinges on amelioration in such troubles, if not complete relief. To wait for it in this case was absurd. The patient was only 31 years of age, and the natural menopause some twelve or fifteen years distant. There was but one course to pursue—the establishment of an artificial menopause. This was proposed and the consent of the patient readily obtained. In selecting a time for the operation, not too soon after one menstrual period and not too near the next, the 26th of December, 1885, was fixed upon as a suitable date. The emaciated condition of the patient and the thinness of the abdominal walls made the operation comparatively simple. An incision of three inches in length was made in the median line below the umbilicus and the peritoneum reached. There was a very slight flow of blood, not a drop of which escaped into the cavity. The peritoneum was now opened and search made for the ovaries, which were found in their normal position, and not above the pelvic brim, as might have been sup-

posed from the position of the uterus and the fibroid growth. The ovaries were drawn out and each pedicle ligated. The incision was closed with four white silk sutures, and the parts supported by adhesive strips. On the seventh day after the operation the sutures were removed, and the wound was found closed by the first intention. The patient recovered without an unfavorable symptom, and on the twelfth day was up and attending to some of her household duties.

The 6th day of January was the time for the next menstrual period. There was some commotion in the pelvic region for several days, but no discharge of any kind.

It is now nearly six months since the removal of the ovaries, the patient has passed six catamenial periods, and there has been no discharge of any kind, except during the February term, when there was only for one day a slight stain of the tissues, and the patient was unable to say from whence it came—from the uterus, vagina or from the rectum.

The patient has regained her strength and color, and is in the best of spirits. The fibroid has perceptibly decreased in size. But we must wait and see what is to be the result. Two years are generally required to prove whether or not this operation is a success. As so much relief has already been afforded, and as there are no indications of a recurrence of the trouble, it is safe to conclude that the relief will be permanent.

Case 3.—Mrs. B. P., aged 40, a bright blonde; the family on one side have a scrofulous taint; married twelve years; has five children, the youngest three years old. Mrs. P. has been a dyspeptic for a number of years, has had frequent attacks of indigestion, accompanied by violent pain and burning in the stomach and bowels and the most intolerable nausea, the latter sometimes lasting for a week at a time, during which period she was unable to take the simplest nourishment. During these attacks of indigestion her voice always leaves her and she is unable to speak above a whisper. About five years ago, soon after the birth of the third child, a fullness was noticed in the right iliac region. The growth increased rapidly in size and the abdomen became greatly distended. Respiration was much disturbed by pressure of the cyst against the stomach and diaphragm. For immediate temporary relief paracentesis abdominal was resorted to. Drs. Lane and David tapped her, and she

tapped herself a number of times by plunging the small blade of a pen-knife into the abdominal cavity. The patient also had umbilical hernia—a large knuckle of bowel protruding at the umbilicus. My first examination of the case was made sometime during the summer of 1885. I thus pronounced it a case of ovarian cyst, and advised an operation. The patient not being ready to submit to an operation then, waited till the spring of 1886.

On the 23d of March, at 11 A. M., the operation was performed in the presence of Drs. J. H. Lane, W. J. David, J. L. Napier, E. Miller, D. M. Prince, W. H. Jennings, J. L. Jordan and W. H. Steele. Dr. Jennings kindly administered chloroform. An incision of five inches was made below the umbilicus, in the median line, and the peritoneum reached. When the peritoneum was opened a large quantity of ascitic fluid escaped. This was doubtless the fluid that had been let out by the various tapplings, as there was no evidence that the cyst had ever been entered by the trocar or by the knife when used by the patient. The sac now presenting was punctured by Emmett's trocar, when a thick, gluey, ropy fluid was discharged, very much like that drawn from cysts that have their origin on the broad ligament. The cyst evidently grew from the right ovary, and in process of development attached itself so firmly to the broad ligament and fallopian tube that it was necessary to ligate a portion of each and remove them with the ovary. Appended to the cyst, inside and out, were a number of what might be termed lardaceous tumors. They were solid to the touch, and when laid open were striated, presenting what seemed to be a combination of fibrous and lardaceous matter. The two largest of these tumors were attached to the inner wall of the sac and were as large as a man's fist. Others, to the number of twenty or more, were fastened to the outer walls, like barnacles to the bottom of old ships. In the larger and more advanced of these tumors the lardaceous matter was more abundant than in the smaller. None of them seemed to be cystiferous, and it is a question if a true cyst, lined with a fluid-secreting membrane, would ever be formed. The adhesions, with the exception of those to the broad ligament and tube, were not extensive, but very firm, requiring the knife or scissors and a strong ligature. They were thick bands of double folds of peritoneum, containing blood-vessels and well-organized tissue. The cyst weighed twenty-five pounds. The operation occupied one hour and

twenty minutes. The patient was a good deal exhausted, but soon rallied, and would have been comfortable but for the nausea, which lasted for several hours. After cleansing the cavity and peritoneum, the incision was closed by eight white silk sutures, and the parts supported by adhesive strips and an elastic flannel bandage. A drainage-tube was kept in three days and the cavity washed out every eight hours.

The patient made a good recovery and is now enjoying excellent health, better than she has been in five years. There has, up to this time, more than two months since the operation, been no accumulation of ascitic fluid in the abdominal cavity.

There was no use made of carbolic acid in either of these cases, excepting that used in the hot water in washing out the cavity. In that it was used with reference to its local anæsthetic properties, and not as an antiseptic. Carbolic acid is no longer regarded as the great poison-germ killer that Lister was wont to make it. It is now looked upon by many of the most experienced surgeons and parietomists as almost worse than useless. Keitte, Bantock, Von Buens, Hamilton, Lawson Tait and Kørberlé all say they do better without it than with it.

We believe the time is near when hot water, soap and clean hands will be considered the only reliable antiseptics.

INTERESTING CASES OF OPIUM POISONING.

Atropin as an Antidote—Artificial Respiration and its Utility—Resuscitation of a Patient who was Pronounced Dead—A Successful Prolonged Maintenance of the Heart's Action after Breathing had Ceased and the Patient beyond Remedy—Remarkable Resuscitation of a Still-born Child.

By W. T. CHEATHAM, M.D., of Henderson, N. C.

(Read before the North Carolina State Medical Society at New Bern, May 20, 1886.)

The rapid increase in the use of opium and its derivatives by the general public, without proper regard for intelligent medical advice, has engendered an unwholesome and pernicious state of society,

which has become painfully disastrous, both to the mental and physical condition of a large percentage of our population. Only a few years in the past the opium habit was a thing comparatively unknown, but to-day we witness an appalling spectacle in the ability of every city, town and hamlet to furnish its brigade, regiment or company, so to speak, of these unfortunates. The large amount of opium and its numerous preparations consumed by this class of individuals has created in the public mind a feeling of security against the immediate hazard likely to follow its improper administration. This illegitimate use and its consequent liberal administration for almost every conceivable complaint by persons uneducated as to its proper dose, therapeutic indication or physiological action, brings it in the domain of the medical practitioner, by far more frequently than formerly, to exercise his skill for the relief of persons whose lives are put in jeopardy by the injudicious administration of this potential poison.

I will, therefore, submit for your consideration the clinical history of a few cases, with some remarks in connection therewith.

Case 1.—A lady, aged 28 years, had neuralgic catemenia; called in a gentleman who was accustomed to administer morphia subcutaneously to his invalid wife, and prevailed with him to try his skill in her case. Urging the necessity for a large dose, he injected two and a half grains of sulphate of morphia. I saw her in company with Dr. J. S. Meadows an hour after its administration. The pupils were minutely contracted and insensible to stimulation; unconsciousness profound, with muscular relaxation and abolition of reflex movements; respiration slow, 3 per minute, shallow and quiet; face shrunk, palid and cyanosed; skin wet; heart pulsations rapid and feeble; atropia 1-24 grain was given subcutaneously; in twenty minutes 1-60 grain was injected, soon to be followed by its mydriatic effect, the pupils dilating widely; the circulation and respiration remaining unchanged for an hour, when the breathing became so indistinct and shallow as to require close inspection to determine whether or not she was living. Recourse was had to artificial respiration, which was practiced at intervals for three hours, when there was manifest improvement, the respiration being 5 per minute and not so shallow. Thenceforward there was gradual improvement, the circulation and respiration becoming better established. The first evidence of returning animation was at the expi-

ration of nine hours, and consisted in twitching of the muscles of the eye-lids. At the expiration of the eleventh hour she with difficulty swallowed some coffee, and was soon beyond danger. She informed me that before the administration of the morphia she took fifty drops of tincture of opium.

Case 2.—An old lady of 70 years, the wife of an opium-eater, had colic, for which he gave one-half grain of morphia; her suffering was so acute that his impatience got the better of him, and, without reflection, he gave two ounces of tincture of opium. I saw her six hours after its administration. She was senseless; skin wet and cyanosed; breathing stertorous and 4 per minute, with feeble and slow action of the heart; muscular relaxation, with abolition of reflex movements; pupils contracted to a fine point. I gave subcutaneously 1-60 grain of atropia, which was repeated in thirty minutes, the pupils dilating widely; but no appreciable effect was observable on the action of the heart or respiration. At the expiration of thirty minutes I injected $1\frac{1}{2}$ grain of sulphurate of strychnia, and repeated the dose in forty minutes. Its excito-motor action was soon made manifest by slight twitching of the muscles of the face and extremities, the respiration and action of the heart remaining unchanged. It was not long, however, before it was evident that the crisis was at hand, the respiration growing rapidly worse, to soon entirely cease; artificial respiration was now practiced, the ingress and egress of air being regulated to 12 or 14 per minute. Respiration was soon restored, to continue a few minutes and again cease. This vacillating condition of cessation and restoration of breathing continued for four hours, artificial respiration being had recourse to many times to re-establish the respiration and save her from immediate death. Thenceforth the improvement was slow, but permanent. It was seventeen hours before she was restored to consciousness and beyond peril.

Case 3.—A bar-tender, while in a state of inebriety, called to see him (Dr. J. H. Tucker), who prescribed a combination of bromide potassium and hydrate of chloral to quiet his excited and nervous condition. During the doctor's absence I was called to see him, and found him with phrenetic and hideous phantasms of delirium tremens, endeavoring to escape by a window from the second story of the building. I administered subcutaneously $\frac{1}{2}$ grain sulphate of morphia and left word for the doctor as to what I had done. An

hour afterwards he returned to find his patient in a state of profound narcosis. I was immediately summoned. He was senseless, with abolition of reflex movements; pulse feeble and rapid; respiration shallow and 3 per minute; pupils contracted to a fine point, with an absence of the cutaneous manipulations usually observed in opium narcosis (cyanosis and wet skin). Atropia, 1 60 grain, was administered subcutaneously; pupils dilating promptly, but without effect on respiration or circulation. Recourse was had to electricity, one pole being applied over the pneumogastric at the base of the neck, while with the electric brush the chest was faradized. (We failed to apply the opposite pole to the seventh intercostal space to obtain the direct effect on the diaphragm). Respiration now became so imperfect and vacillating that several times we thought him dead, to be resuscitated by artificial respiration. For five hours his case seemed hopeless, artificial respiration being necessary every few minutes to prevent immediate dissolution. He made a good recovery. This man has since informed me that he had partaken freely of various alcoholic mixtures, and a few minutes before I saw him drank a pint of Angostura bitters, a mixture used by shopkeepers to disguise inferior whiskey. In this case we had a mixed narcosis, the result of alcoholism, chloral, bromide and morphia.

Case 4.—A child 13 months old; had prescribed for it a chalk mixture containing tincture of opium. The physician prepared it extemporaneously, without proper regard to the quantity of the tincture to be taken in each dose. The dose must have been large, as the mixture was quite dark and emitted a strong opium odor. The mother stated that he poured it from a vial into the mixture without measuring or dropping. Eight hours had elapsed before I saw it. The eyes were glazed; the conjunctiva deeply injected, with pupils contracted to a fine point; abolition of reflex movements; the cutaneous surface dusky, purplish and wet; respiration 4 per minute and shallow; pulse scarcely perceptible and rapid. I practiced artificial respiration, regulating the ingress and egress of air to about 16 or 18 per minute. In forty minutes there was a decided improvement, the respiration 12 per minute, without the assistance of artificial respiration, and the pulse of better volume. In two hours and a half there was a return to consciousness. Artificial respiration was not practiced after the respiration had attained 12 per minute, the case being then left to nature.

being done, two large arteries and a smaller one presented their open mouths. They were drawn out separately, and each was tied with silk ligature. A double ligature was then passed through the pedicle, between the arteries and firmly secured on each side. The cavity and peritoneum were cleansed and the incision closed with nine white silk ligatures. As there was much oozing from the multitude of vessels ruptured in breaking up the adhesions, a drainage-tube was put in, which did valuable service for three or four days.

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Case 2.—Mrs. R. S. P., white, aged 31, married 13 years; has had two children, youngest 10 years old. Mrs. P. was married at 18 years of age and gave birth to her two children in three years time. Her general health was good for seven years after her last confinement, at which time menstruation began to be irregular as to quantity—was too free and lasted from four to six days, and was accompanied with troublesome uterine tormina. This condition, except in an aggravated form, continued for three years, each menstruation being more profuse, and the uterine pains becoming unbearable.

At the time of my first examination of the case the menstrual flow was at times more like a post-partum hæmorrhage, and lasted from

nine to fifteen days. The patient was greatly exhausted—much emaciated; the skin waxy white; the face and lower extremities œdematous. She was much depressed in spirit, and had abandoned all hope of ever being well again or even living much longer. In this she was not far from right, for she had lost about as much blood as she could spare. Superadded to this, the violent pelvic pains she was called upon to endure every four weeks had brought her to that state of exhaustion where nature must soon succumb. She could not possibly have lasted more than two or three months longer.

The emaciated condition of the patient aided much in making a clear and satisfactory diagnosis in the case. There was no displacement of the uterus, no flexion of the cervix; the sound passed readily into the cavity to the depth of two and seven-eighths inches. At the fundus, a little to one side, near the right horn, I discovered an interstitial fibroid, about as large as a medium size orange. It was oblong in shape, the lower extremity reaching the cervix. This, the patient informed me, had been perceptible to the touch for the past six months. It had doubtless been growing for several years, and was the cause of the trouble that was sapping the foundations of her life. Feeling assured in my own mind that nothing but surgical interference in this case could afford any relief, and that if Batty's operation, which he properly styles "Normal Ovariectomy," was ever justifiable, it certainly was in a case of this kind. The menopause generally hinges on amelioration in such troubles, if not complete relief. To wait for it in this case was absurd. The patient was only 31 years of age, and the natural menopause some twelve or fifteen years distant. There was but one course to pursue—the establishment of an artificial menopause. This was proposed and the consent of the patient readily obtained. In selecting a time for the operation, not too soon after one menstrual period and not too near the next, the 26th of December, 1885, was fixed upon as a suitable date. The emaciated condition of the patient and the thinness of the abdominal walls made the operation comparatively simple. An incision of three inches in length was made in the median line below the umbilicus and the peritoneum reached. There was a very slight flow of blood, not a drop of which escaped into the cavity. The peritoneum was now opened and search made for the ovaries, which were found in their normal position, and not above the pelvic brim, as might have been sup-

posed from the position of the uterus and the fibroid growth. The ovaries were drawn out and each pedicle ligated. The incision was closed with four white silk sutures, and the parts supported by adhesive strips. On the seventh day after the operation the sutures were removed, and the wound was found closed by the first intention. The patient recovered without an unfavorable symptom, and on the twelfth day was up and attending to some of her household duties.

The 6th day of January was the time for the next menstrual period. There was some commotion in the pelvic region for several days, but no discharge of any kind.

It is now nearly six months since the removal of the ovaries, the patient has passed six catamenial periods, and there has been no discharge of any kind, except during the February term, when there was only for one day a slight stain of the tissues, and the patient was unable to say from whence it came—from the uterus, vagina or from the rectum.

The patient has regained her strength and color, and is in the best of spirits. The fibroid has perceptibly decreased in size. But we must wait and see what is to be the result. Two years are generally required to prove whether or not this operation is a success. As so much relief has already been afforded, and as there are no indications of a recurrence of the trouble, it is safe to conclude that the relief will be permanent.

Case 3.—Mrs. B. P., aged 40, a bright blonde; the family on one side have a scrofulous taint; married twelve years; has five children, the youngest three years old. Mrs. P. has been a dyspeptic for a number of years, has had frequent attacks of indigestion, accompanied by violent pain and burning in the stomach and bowels and the most intolerable nausea, the latter sometimes lasting for a week at a time, during which period she was unable to take the simplest nourishment. During these attacks of indigestion her voice always leaves her and she is unable to speak above a whisper. About five years ago, soon after the birth of the third child, a fullness was noticed in the right iliac region. The growth increased rapidly in size and the abdomen became greatly distended. Respiration was much disturbed by pressure of the cyst against the stomach and diaphragm. For immediate temporary relief paracentesis abdominal was resorted to. Drs. Lane and David tapped her, and she

tapped herself a number of times by plunging the small blade of a pen-knife into the abdominal cavity. The patient also had umbilical hernia—a large knuckle of bowel protruding at the umbilicus. My first examination of the case was made sometime during the summer of 1885. I thus pronounced it a case of ovarian cyst, and advised an operation. The patient not being ready to submit to an operation then, waited till the spring of 1886.

On the 23d of March, at 11 A. M., the operation was performed in the presence of Drs. J. H. Lane, W. J. David, J. L. Napier, E. Miller, D. M. Prince, W. H. Jennings, J. L. Jordan and W. H. Steele. Dr. Jennings kindly administered chloroform. An incision of five inches was made below the umbilicus, in the median line, and the peritoneum reached. When the peritoneum was opened a large quantity of ascitic fluid escaped. This was doubtless the fluid that had been let out by the various tappings, as there was no evidence that the cyst had ever been entered by the trocar or by the knife when used by the patient. The sac now presenting was punctured by Emmett's trocar, when a thick, gluey, ropy fluid was discharged, very much like that drawn from cysts that have their origin on the broad ligament. The cyst evidently grew from the right ovary, and in process of development attached itself so firmly to the broad ligament and fallopian tube that it was necessary to ligate a portion of each and remove them with the ovary. Appended to the cyst, inside and out, were a number of what might be termed lardaceous tumors. They were solid to the touch, and when laid open were striated, presenting what seemed to be a combination of fibrous and lardaceous matter. The two largest of these tumors were attached to the inner wall of the sac and were as large as a man's fist. Others, to the number of twenty or more, were fastened to the outer walls, like barnacles to the bottom of old ships. In the larger and more advanced of these tumors the lardaceous matter was more abundant than in the smaller. None of them seemed to be cystiferous, and it is a question if a true cyst, lined with a fluid-secreting membrane, would ever be formed. The adhesions, with the exception of those to the broad ligament and tube, were not extensive, but very firm, requiring the knife or scissors and a strong ligature. They were thick bands of double folds of peritoneum, containing blood-vessels and well-organized tissue. The cyst weighed twenty-five pounds. The operation occupied one hour and

twenty minutes. The patient was a good deal exhausted, but soon rallied, and would have been comfortable but for the nausea, which lasted for several hours. After cleansing the cavity and peritoneum, the incision was closed by eight white silk sutures, and the parts supported by adhesive strips and an elastic flannel bandage. A drainage-tube was kept in three days and the cavity washed out every eight hours.

The patient made a good recovery and is now enjoying excellent health, better than she has been in five years. There has, up to this time, more than two months since the operation, been no accumulation of ascitic fluid in the abdominal cavity.

There was no use made of carbolic acid in either of these cases, excepting that used in the hot water in washing out the cavity. In that it was used with reference to its local anæsthetic properties, and not as an antiseptic. Carbolic acid is no longer regarded as the great poison-germ killer that Lister was wont to make it. It is now looked upon by many of the most experienced surgeons and parietomists as almost worse than useless. Keitte, Bantock, Von Buena, Hamilton, Lawson Tait and Körberlé all say they do better without it than with it.

We believe the time is near when hot water, soap and clean hands will be considered the only reliable antiseptics.

INTERESTING CASES OF OPIUM POISONING.

Atropin as an Antidote—Artificial Respiration and its Utility—Resuscitation of a Patient who was Pronounced Dead—A Successful Prolonged Maintenance of the Heart's Action after Breathing had Ceased and the Patient beyond Remedy—Remarkable Resuscitation of a Still-born Child.

By W. T. CHEATHAM, M.D., of Henderson, N. C.

(Read before the North Carolina State Medical Society at New Bern, May 20, 1886.)

The rapid increase in the use of opium and its derivatives by the general public, without proper regard for intelligent medical advice, has engendered an unwholesome and pernicious state of society,

which has become painfully disastrous, both to the mental and physical condition of a large percentage of our population. Only a few years in the past the opium habit was a thing comparatively unknown, but to-day we witness an appalling spectacle in the ability of every city, town and hamlet to furnish its brigade, regiment or company, so to speak, of these unfortunates. The large amount of opium and its numerous preparations consumed by this class of individuals has created in the public mind a feeling of security against the immediate hazard likely to follow its improper administration. This illegitimate use and its consequent liberal administration for almost every conceivable complaint by persons uneducated as to its proper dose, therapeutic indication or physiological action, brings it in the domain of the medical practitioner, by far more frequently than formerly, to exercise his skill for the relief of persons whose lives are put in jeopardy by the injudicious administration of this potential poison.

I will, therefore, submit for your consideration the clinical history of a few cases, with some remarks in connection therewith.

Case 1.—A lady, aged 28 years, had neuralgic catamenia; called in a gentleman who was accustomed to administer morphia subcutaneously to his invalid wife, and prevailed with him to try his skill in her case. Urging the necessity for a large dose, he injected two and a half grains of sulphate of morphia. I saw her in company with Dr. J. S. Meadows an hour after its administration. The pupils were minutely contracted and insensible to stimulation; unconsciousness profound, with muscular relaxation and abolition of reflex movements; respiration slow, 3 per minute, shallow and quiet; face shrunken, palid and cyanosed; skin wet; heart pulsations rapid and feeble; atropia 1-24 grain was given subcutaneously; in twenty minutes 1-60 grain was injected, soon to be followed by its mydriatic effect, the pupils dilating widely; the circulation and respiration remaining unchanged for an hour, when the breathing became so indistinct and shallow as to require close inspection to determine whether or not she was living. Recourse was had to artificial respiration, which was practiced at intervals for three hours, when there was manifest improvement, the respiration being 5 per minute and not so shallow. Thenceforward there was gradual improvement, the circulation and respiration becoming better established. The first evidence of returning animation was at the expi-

ration of nine hours, and consisted in twitching of the muscles of the eye-lids. At the expiration of the eleventh hour she with difficulty swallowed some coffee, and was soon beyond danger. She informed me that before the administration of the morphia she took fifty drops of tincture of opium.

Case 2.—An old lady of 70 years, the wife of an opium-eater, had colic, for which he gave one-half grain of morphia; her suffering was so acute that his impatience got the better of him, and, without reflection, he gave two ounces of tincture of opium. I saw her six hours after its administration. She was senseless; skin wet and cyanosed; breathing stertorous and 4 per minute, with feeble and slow action of the heart; muscular relaxation, with abolition of reflex movements; pupils contracted to a fine point. I gave subcutaneously 1-60 grain of atropia, which was repeated in thirty minutes, the pupils dilating widely; but no appreciable effect was observable on the action of the heart or respiration. At the expiration of thirty minutes I injected $1\frac{1}{2}$ grain of sulphurate of strychnia, and repeated the dose in forty minutes. Its excito-motor action was soon made manifest by slight twitching of the muscles of the face and extremities, the respiration and action of the heart remaining unchanged. It was not long, however, before it was evident that the crisis was at hand, the respiration growing rapidly worse, to soon entirely cease; artificial respiration was now practiced, the ingress and egress of air being regulated to 12 or 14 per minute. Respiration was soon restored, to continue a few minutes and again cease. This vacillating condition of cessation and restoration of breathing continued for four hours, artificial respiration being had recourse to many times to re-establish the respiration and save her from immediate death. Thenceforth the improvement was slow, but permanent. It was seventeen hours before she was restored to consciousness and beyond peril.

Case 3.—A bar-tender, while in a state of inebriety, called to see him (Dr. J. H. Tucker), who prescribed a combination of bromide potassium and hydrate of chloral to quiet his excited and nervous condition. During the doctor's absence I was called to see him, and found him with phrenetic and hideous phantasms of delirium tremens, endeavoring to escape by a window from the second story of the building. I administered subcutaneously $\frac{1}{2}$ grain sulphate of morphia and left word for the doctor as to what I had done. An

hour afterwards he returned to find his patient in a state of profound narcosis. I was immediately summoned. He was senseless, with abolition of reflex movements; pulse feeble and rapid; respiration shallow and 3 per minute; pupils contracted to a fine point, with an absence of the cutaneous manipulations usually observed in opium narcosis (cyanosis and wet skin). Atropia, 1 60 grain, was administered subcutaneously; pupils dilating promptly, but without effect on respiration or circulation. Recourse was had to electricity, one pole being applied over the pneumogastric at the base of the neck, while with the electric brush the chest was faradized. (We failed to apply the opposite pole to the seventh intercostal space to obtain the direct effect on the diaphragm). Respiration now became so imperfect and vacillating that several times we thought him dead, to be resuscitated by artificial respiration. For five hours his case seemed hopeless, artificial respiration being necessary every few minutes to prevent immediate dissolution. He made a good recovery. This man has since informed me that he had partaken freely of various alcoholic mixtures, and a few minutes before I saw him drank a pint of Angostura bitters, a mixture used by shopkeepers to disguise inferior whiskey. In this case we had a mixed narcosis, the result of alcoholism, chloral, bromide and morphia.

Case 4.—A child 13 months old; had prescribed for it a chalk mixture containing tincture of opium. The physician prepared it extemporaneously, without proper regard to the quantity of the tincture to be taken in each dose. The dose must have been large, as the mixture was quite dark and emitted a strong opium odor. The mother stated that he poured it from a vial into the mixture without measuring or dropping. Eight hours had elapsed before I saw it. The eyes were glazed; the conjuction deeply injected, with pupils contracted to a fine point; abolition of reflex movements; the cutaneous surface dusky, purplish and wet; respiration 4 per minute and shallow; pulse scarcely perceptible and rapid. I practiced artificial respiration, regulating the ingress and egress of air to about 16 or 18 per minute. In forty minutes there was a decided improvement, the respiration 12 per minute, without the assistance of artificial respiration, and the pulse of better volume. In two hours and a half there was a return to consciousness. Artificial respiration was not practiced after the respiration had attained 12 per minute, the case being then left to nature.

Case 5.—A lawyer of stout build, with short neck and of full habit was on a spree. At 10 P. M., I was summoned in haste to see him ; I was met at the door by his doctor, who informed me that his patient was dying, and was about breathing his last ; thought he had apoplexy. I found him lifeless ; the cutaneous surface presenting a deep dusky purplish hue ; circulation rapid and feeble, with respiration 3 per minute and stertorous ; his mouth was open, with a frothy liquid bubbling out at each expiration ; the pupils were contracted to a fine point. My diagnosis was opium necrosis, but the doctor thought differently, as he had not prescribed opium or any of its alkaloids. I repaired to a druggist near by to obtain a solution of atropia. Finding his place of business closed, I returned as quickly as possible, and on re-entering the house I was informed that he was dead ; a gentleman was recording the time of his death on the wall with his pencil. On placing my hand over the præcordia I could distinguish feeble heart pulsation. I lifted him quickly, and, turning him face downward, at the same time pulling his head over the side of the bed, and with my hand making pressure over the stomach, about a quart of fluid escaped by the mouth and nostrils. This procedure was to prepare him for artificial respiration, there being a frothy liquid oozing from the angles of his mouth, which it was necessary to remove in order that there should be no obstruction to the entrance of air to the lungs. Artificial respiration was immediately instituted, the ingress and egress of air being regulated to about 14 or 16 per minute. It was thirty-one minutes before there was an attempt to respire, the effort being weak and ineffectual, no air penetrating the lungs ; and thirty-seven minutes elapsing before a successful respiration was accomplished independently of artificial means. Artificial respiration was continued with an occasional successful respiratory effort intervening. The improvement was gradual, but slow. In an hour and forty minutes he was breathing 5 per minute, but it was of a stertorous character. It was nine hours before there was a return to consciousness. This gentleman was resuscitated by artificial respiration alone, no other means being used. His wife, however, before I saw him, applied a hot smoothing iron to his feet, which burned one of them so severely as to require the use of crutches for several months as a means of locomotion. I was never able to ascertain the amount of opium or its alkaloids taken by this patient,

but it must have been large, as it was his custom while spreeing to take a grain or two of morphia at a dose of his own volition. He lived twelve months to die of pneumonia.

Case 6.—A boy, 8 years old, had acute basilar meningitis, derived by contiguity of tissue from disease of the internal ear. His suffering was intense; wild delirium, with agonizing cries from pain; ocular defects and disturbances; twitchings of the facial muscles; rigidity and contractions of the spinal and cervical muscles, etc. This was the first day of the disease. Two days previously the pulse was 60 per minute, the result of pressure on the medulla oblongata, with a temperature of 103° , but now the pulse was 170 per minute, with a temperature of 104° . This patient had received the treatment usually prescribed in cases of this kind. In consultation, all other means of obtaining quietude having failed, it was suggested that 1-8 grain morphia be given subcutaneously; to this I demurred, believing that the delirium would soon be succeeded by somnolence gradually deepening into coma, and that the morphia would hasten this inevitable condition, and perhaps be looked upon as the sole factor in its production.

This was explained to the father, an intelligent druggist, and with his approval, to obtain immediate relief from suffering, 1-8 grain morphia was injected, the solution containing atropia to antagonize its lethal effect. This soon produced quietude and apparently good sleep. We left to return in two hours; but in thirty minutes we were summoned in haste to find our patient senseless, with abolition of reflex movements and breathing 4 per minute; pupils dilated and the appearance of the skin normal. In a few minutes the respiration increased to 12 per minute, but soon became alarmingly slow, and suddenly ceased. I immediately instituted artificial respiration, regulating the ingress and egress of air to 16 or 18 per minute, the heart continuing to pulsate. With the assistance of Dr. J. H. Tucker and two young men, the artificial respiration was continued eleven hours and forty minutes' the heart continuing to act with remarkable vigor during the entire time, but at no time during that long period did the patient respire *per vias naturales* or make an effort at respiration. Indications of approaching rigor mortis were now manifest, the entire cutaneous surface being cold, with the extremities cold and stiff. Although the heart could be distinctly felt to pulsate, our efforts to maintain its action longer were discontinued.

In case 1st, I was very decided in the opinion that atropia, by its antidotal effect, saved my patient's life. This opinion, I think, was premature, and the outcome of my reading and investigation of this subject. Recognizing atropia's antagonistic effect on the iris, I readily embraced the doctrine promulgated that it was all-sufficient to counteract the deadly work of opium and its alkaloids taken in lethal quantities; but my subsequent experience has caused me to materially modify my opinion, and I now attach much importance to artificial respiration as a factor in producing the happy result, though imperfectly practiced in this case. In the cases of the old lady and the bar-tender, both of whom took atropia for its antidotal properties, without the aid of artificial respiration they must have perished. In the case of the child no antidote was given, and it is possible, but not at all probable, that it would have recovered without assistance; yet it is clearly manifest that artificial respiration put it beyond hazard, if not, in fact, saved its life. Again, in the case of the lawyer, who did not respire in thirty-seven minutes, can it be said that any other means than artificial respiration could have resulted in his resuscitation? And again, in the case of the boy in whom the heart pulsations were continued for eleven hours and forty minutes, can there be any doubt as to the wonderful efficiency of artificial respiration, or that he would have been saved had it not been for the cerebral complication? For the medulla oblongata and pneumogastric nerves regulate the respiratory movements so far as they are involuntary and independent of consciousness; therefore it is evident that the existence of disease involving the respiratory center, the medulla oblongata, precluded the possibility of resuscitation. This condition being fully appreciated, artificial respiration was practiced as a matter of experimentation, and we aver that the result was simply wonderful.

I do not propose to enter into a lengthy discussion of the supposed physiological action of atropia, but refer briefly to what seems pertinent as relates to its antagonism in opium narcosis. There seems to be no fixed principle by which we may be guided in the administration of atropia to obtain its antagonism. The hypodermic dose and the frequency of its repetition have varied in different cases between remote extremes. In one, for example, five doses each of 1-12 grain was given within as many hours (*Medical News*, xl. 123). In another case 1-10 grain was injected, and afterwards 1-4 grain (*Practitioner*, xxiii. 123). Fothergill gave one grain to

antagonize "12 to 17 grains of opium." Dr. J. H. Clarke administered 1-150 grain every half hour up to three doses (the pupils dilating), to counteract thirty grains of morphia and 1-1500 grain to antagonize 1 grain of morphia. In the *National Dispensatory* it is recommended that we administer 1-60 grain, and repeat until the pulse and respiration acquire more force and the pupils begin to dilate; and caution must be observed lest we substitute the narcotic action of atropia for that of opium. Dr. Bartholow is very positive that 1-120 grain is the dose proper to be given to obtain the antagonistic effect, "and this may be repeated every fifteen minutes (up to three doses) until the pupils dilate," then await the result of the antagonism. He gives strong caution against pushing the remedy, "lest we substitute belladonna narcosis for opium narcosis, and thus induce the state which its administration was intended to relieve." He also states that he has had some painful personal experience, and that "it is a fatal error to attempt to restore a patient to consciousness by repeated doses of belladonna, for the repeated action of these agents combined is to produce a profound sopor, and this is not a condition of danger so long as the pulse, respiration and reflex movements are in a good condition. To substitute belladonna narcosis for opium narcosis is only to increase the hazard under which the patient is already struggling." Dr. H. C. Wood thinks 1-40 grain a fair dose to commence with, and that 1-40 or 1-60 grain may be injected every fifteen, twenty or thirty minutes, as the urgency of the symptoms may demand; that the delicate, practical point is to decide how often to repeat the dose, lest paralysis of the nervous trunks is produced and the danger increased. It is difficult to harmonize the conflicting opinions, as to what is the proper and safe course to be pursued in the administration of the mydriatic for its antagonistic effect in opium narcosis. It is manifest, however, that too much caution cannot be exercised in the administration of this potential toxic agent; especially is this true when the nervous centers are in a state of narcotic paralysis. In those patients to whom I administered it for its physiological action on the respiratory and cardiac nervous centers it failed to sustain its high reputation, although (in every case) mydriasis was fully established. (Strychnia and electricity also failed.)

It may be that the failure to sustain its physiological record was due to diminished and paralyzed reflex susceptibility, the nervous

system being overwhelmed by the existing toxæmiæ, and therefore was not susceptible to the antagonistic action of the mydriatic, which perhaps might have been of value in sustaining respiratory and cardiac action had not the system been encumbered to the extent of paralysis of the nervous centers.

It is said by a distinguished writer on materia medica and therapeutics "that the stimulation of the vaso-motor centers by belladonna or atropia is not confined to the cardiac ganglia, but extends to the vaso-motor ganglia throughout the body and a general rise of blood-pressure takes place, owing to contraction of the arterioles. It is a singular fact that the influence of atropia rapidly produces a state of over-excitation, and the irritability of the vaso-motor nervous system at first increased, soon diminishes; the action of the heart becomes weak, the vessels dilate and the blood-pressure falls below normal. This statement is made in reference to the medicinal action of atropia, for he says: "In large medicinal doses this effect is easily seen." If this be true of atropia when taken in medicinal doses, it would materially damage its claim of antagonism in opium narcosis, when it is manifest that "the action of the heart becomes weak the vessels dilate and the blood-pressure falls below normal."

It is conceded by all observers that atropia, when taken in medicinal doses, primarily checks cutaneous transpiration, produces dryness of the mucous membranes of the nose, mouth, throat and larynx, and it may be that this action extends to the stomach, intestines, bronchi and pulmonary vesicles. Inasmuch as the function of excretion is most necessary to the maintenance of life, and atropia or belladonna, in its primary action, is possessed of the quality of checking the excretions of some, if not of all the most important emunctories, it seems reasonable that a therapeutic agent whose action checks transpiration would be of doubtful propriety, when the system contains noxious elements which must be eliminated by the organs of excretion before there can be a return to normal, and as these organs constitute the avenues by which the excrementitious products, containing the poisonous elements, must be eliminated, is it not pertinent to inquire if the primary action of atropia, by checking excretion, does not counterbalance the benefit likely to accrue from its stimulation of the cardiac and respiratory nervous centers? When belladonna or atropia is taken in poisonous

doses the primary action is not productive of sleep or narcotism, but excites delirious hallucinations accompanied by phantasms and spectral illusions. Yet when the hazard becomes great and the peril imminent, there is deep stupor and great muscular relaxation, with marked failure, both of the heart's action and of the respiratory forces, death being brought about by asphyxia. Therefore, when we consider the potential character of atropia for mischief, and the discrepancies of opinion that obtain as to the proper dose, and how far to push its administration to secure its antagonistic effect on the nervous centers, and its striking toxic similarity to opium toxæmiæ on the circulation and respiration, when there is imminent peril, must it not be considered an unsafe remedy, even in the hands of the skilled and judicious practitioner, and the propriety of its administration in this connection a question yet *sub judice*? Atropia holds such a prominent position as a physiological antagonist to the lethal principle of opium that many practitioners combine it with morphia for its specific protection when subcutaneously administered. This view is almost universally held as orthodox, and is perhaps due to the fulsome praises bestowed upon it by learned writers on materia medica and therapeutics. The time, however, has happily passed when the human mind is to credit the mere verba magistri or to place implicit credence in a scientific assertion without examination, because it proceeds from this or that individual. The rule of conduct implied in the language of the Roman satirist, "*Marcus dixit ita est,*"

"Did Marcus say 'twas fact! then fact it is;
No proof so valid as word of his,"

has been too much inculcated in all ages and no science has suffered so much from it as medicine.

We find in the recent works on materia medica and therapeutics that artificial respiration is recommended in opium poisoning, but is referred to *en passant* as an auxiliary to other means. I do not think it is held in sufficiently high esteem, as I am fully persuaded that this is the remedy *par excellence*, and better results may be expected from it when properly practiced than from all other known means combined. The practice of walking, flagellation, etc., could not have been of any value in the foregoing cases, as they were, without exception, in a state of total insensibility and profound

paralytic toxæmiæ, when first seen, yet they were all resuscitated, with the exception of the boy who had meningitis, and whose death was not attributable to the lethal effect of opium. I have been informed of several cases in which walking, flagellation, atropia, etc., were practiced, the patient being kept on the feet for hours, finally to die in a profound coma. It is manifestly apparent that in opium narcosis, the respiration being reduced to a low rate, and the heart-force being diminished, the blood being no longer sent through the pulmonary circulation with sufficient celerity, it becomes venous from defective æration, and another agent potential for mischief is superadded to the existing trouble, the blood becoming saturated with carbonic acid. The presence of this poisonous gas greatly increases the hazard, and to it must be attributed much of the failing circulation, embarrassed respiration and unconsciousness. This double profound narcosis is more rapidly produced when the respiration is shallow, and the normal vital capacity of the lungs is not attained during the respiratory act. The carbonic acid and the lethal principle of opium must be eliminated from the system before we can reasonably expect a return to normal; and the lungs constituting the principal avenue for its elimination, the respiration should be maintained as near the normal as possible to attain this desideratum.

When the vital powers are paralyzed from the combined lethal effect of opium and carbonic acid the right cavities of the heart and the large venous trunks are evidently distended with venous blood. In consequence of the diminished frequency of the respiratory movements the blood is imperfectly decarbonized and the capillary circulation of the lungs is impeded, the action of the heart weak and the resistance *à fronte* increased, and it is obvious that venous stasis must take place. For the removal of this condition nature has furnished the remedy in air, which is possessed of the vitalizing principle necessary to a continuance of respiration and the promotion of cardiac action, without which we shall be unable to relieve venous stasis and restore a patient from opium narcosis. When the vital powers are not equal to the task of carrying on respiration, and thus furnishing the necessary supply of air to decarbonize the blood and enable the system to expel the toxic elements, the desideratum being to perpetuate life until the excess of poison is eliminated or destroyed, and the patient beyond jeopardy, we can

by artificial respiration furnish the air which is so necessary with a most reasonable certainty of success.

Various methods for practicing artificial respiration are in vogue. I shall not enter into a lengthy discussion of their relative merits, but refer to them briefly. Marshall Hall's ready method for the resuscitation of the asphyxiated has resulted in very marked success. Dr. Hall says the following has been demonstrated by experiments innumerable: "that if the subject be laid prone, and pressure be briskly made on the back, there is good respiration; and that if the pressure be removed and the body turned on its side, and a little more, there is good inspiration; that if this pronation and pressure and this removal of the pressure and rotation be instituted alternately, there is good respiration." It is claimed that Sylvester's plan is of great merit and is more generally practiced than any others. It differs from Hall's in the following: the subject is put on his back, the arms are grasped at the elbows and drawn above the head; then this manoeuvre is reversed, and the arms are pressed against the sides of the chest; "this to-and-fro movement" to be repeated at will.

Dr. Benjamin Howard has described a plan which he claims is of great merit, but it and the Michigan method, which very much resembles his, are too complicated to be readily utilized.

Dr. T. E. Satterthwaite's plan consists in placing the person on the back in the horizontal position, and making pressure on the abdomen so as to force the diaphragm upward, pressing slowly at first, and then, suddenly forcing the air out, withdrawing the hand, the diaphragm descending, the lungs inflate with air. This plan is certainly possessed of the merit of simplicity, and doubtless would prove of much value if practiced as an auxiliary to other means. In practicing artificial respiration the necessity for keeping the mouth open and the tongue well forward is very important, for it would be fatal to success to allow the tongue to fall backward, close the glottis and shut off the entrance of air to the lungs. I will briefly state my method as practiced in the cases described in the beginning of this article. With the patient placed on a bed close to its side, the operator seating himself on the edge of the bed, partially behind the subject, who is lifted to a semi-erect position, resting partly against the left side of the operator, the head should be made to fall slightly forward and to the side opposite to the

operator, with the mouth open ; the tongue falls forward and the way is clear for the entrance of air to the lungs. Then, placing the hands respectively in the axillæ from behind, the shoulders should be lifted upward, outward and forward, and held steady until you can count three, then let the shoulders descend slowly, at the same time making gentle pressure on the chest to expel the air. This movement can be regulated at will, and when skillfully performed the ingress and egress of air can be distinctly heard several feet away. I am of opinion that by this method the vital capacity of the chest can be raised to the maximum and the full benefit of artificial respiration obtained. When a child is born asphyxiated and there is no mechanical obstruction to breathing, and cold water has been dashed on the face with a view of acting on the medulla oblongata through the stimulation of the terminal branches of the fifth pair of nerves, and friction, flagellation and other means usually employed have proved abortive ; if we expect to save the child we shall have to resort to artificial respiration as the surest means for resuscitation. Insufflation is the only other method worthy of mention in this connection, and consists in blowing air from our lungs into the mouth of the child, using at the same time the precaution of closing the nostrils of the child. After each inflation the chest should be gently compressed in order to expel the air from the lungs.

The faculty of resisting asphyxia, that is, of living without breathing, is very much greater in the new-born infant than in the adult ; so, if a child should not breathe for a long time, it should not be abandoned and considered beyond remedy ; for it has been demonstrated that life may be restored, even after the heart has ceased to pulsate for several minutes, Josat and Brachet placing the limit at five minutes. It is worthy to be remembered that the asphyxiated infant should not be kept near a fire, for the colder the temperature of the air, the longer can asphyxia be resisted. I have had some very interesting experience in the resuscitation of asphyxiated new-born infants.

I will briefly state a case of recent occurrence of a most remarkable character :

February 13th Mrs. G., in her second pregnancy, had footling delivery, with retention of head at pelvic brim ; the funis came down with feet and ceased to pulsate. There was delay in the

delivery of the head, which was due to two causes: first, the hands were placed above the head, with the elbows resting on the pelvic brim, which condition had to be rectified; second, the pains were slow and ineffectual, necessitating a second interference for the delivery of the head. The delay from the time of cessation of pulsation in the umbilical cord to the final extraction of the head must have been fully thirty minutes. The father, to whom I announced that the cord had ceased to pulsate and that the child was dead, said he observed the time and that it was above thirty minutes before the delivery was accomplished. The child was pallid, with shrunken features, and the funis flaccid and devoid of circulation, it being cut before tying, no blood escaping. I made no attempt at resuscitation by the ordinary methods, but resorted at once to artificial respiration by insufflation. In three and a half minutes I could distinguish feeble heart-pulsations. It was forty-two minutes before there was an attempt at respiration, and an hour and fifty minutes' constant attention was necessary to preserve the child's life. This case, so far as I am informed, is without a parallel, with the single exception of the case reported by J. Foster Jenkins, M.D., in which the funis was pulseless for twenty-five minutes before delivery, and no attempt was made at respiration for thirty minutes after birth, more than two hours' strict attention being necessary to perpetuate the child's life. These cases come in direct conflict with the opinion so emphatically expressed by Sir Benjamin Brodie, who wrote in his "Lectures on Pathology and Surgery": "If the action of the heart, by which the circulation is maintained, should cease as a consequence of suspension of respiration, it can never be restored. This I positively assert after having made it the subject of a very careful investigation."

In conclusion, Dr. J. M. Hays, who is present, informs me that, while an interne at the Charleston Hospital, he witnessed a case of pulmonary emphysema produced by artificial respiration in the endeavor to resuscitate a still-born infant, and that the post-mortem demonstrated rupture of the pulmonary vesicles. This was evidently the result of too forcible inflation, and demonstrates the necessity for observing caution lest we destroy our chances for preserving the life of the child.

Since meeting with my friend and neighbor, Dr. Picôt, he has called my attention to an article by Dr. John Arthur Francis in the *Philadelphia Medical and Surgical Reporter* for May 15th of this year,

in which he describes what he calls a simple method of artificial respiration. It is this: The body having been laid on the back, with clothes loosened, mouth and nose wiped, two persons pass a narrow lever of any kind under the body at the level of the waist and raise the body till the tip of the fingers and the toes of the subject alone touch the ground; count fifteen rapidly, then lower the body to the ground and press the elbows to the sides, counting fifteen again, then raise the body again for the same length of time, continuing these movements until respiration is restored. The arms and legs are to be allowed to dangle freely when the body is raised.

SELECTED PAPERS.

INTUBATION OF THE LARYNX.

This surgical procedure for the relief of stenosis of the larynx has excited considerable discussion the past year. Its advocates claim that it has many advantages over tracheotomy, and that it will supersede that operation in cases of croupous or diphtheritic laryngitis, especially in young children. Intubation of the larynx was first proposed and practised in this country by Dr. Joseph O'Dwyer, of New York. Up to the present time there have been thirty-five operations reported by different surgeons, with thirteen recoveries.

Dr. O'Dwyer's instruments consist of a gag, five laryngeal tubes, an applicator, extractor and a gauge. The tubes range in length from $1\frac{1}{2}$ to $2\frac{1}{2}$ inches. Their calibre is only $\frac{1}{4} \times \frac{1}{4}$ of an inch in the largest, and not more than half this capacity in the smallest. The tube is introduced within the larynx and trachea through the mouth, and remains there. In one case reported it was retained a week without any detriment whatever. The upper end of the tube rests upon the ventricular bands, and does not interfere with the movements of the epiglottis. The lower end is about half an inch from the bifurcation

of the trachea. Slight ulceration may be produced by the head and lower end of the tube when retained for a long time. In most cases semi-solid food is taken well from the beginning, but it usually takes twenty-four hours for the child to learn to swallow liquids.

Dr. F. E. Waxham, of Chicago, has tabulated the various advantages of intubation over tracheotomy as follows:

1st. No opposition is met with on the part of parents and friends; quite a contrast to the difficulty with which we usually meet in obtaining the consent to perform tracheotomy.

2d. It relieves the urgent dyspnoea as promptly and as effectually as tracheotomy, and if the child dies, there is no regret that the operation has been performed, and no discredit attached to the physician.

3d. There is less irritation from the laryngeal tubes than from the tracheal canula. As the tube is considerably smaller than the trachea, it does not press firmly at any portion excepting at the chink of the glottis.

4th. Expectoration occurs more readily than through the tracheal tube.

5th. As the tube terminates in the throat, the air that enters the lungs is warm and moist from its course through the upper air-passages, and consequently there is less danger of pneumonia from this source.

6th. It is a bloodless operation.

7th. It is more quickly performed, and with less danger.

8th. There is no wound to close by slow granulation, and consequently convalescence is more rapid.

9th. There is no wound that may be the source of constitutional infection.

10th. The patient does not require the unremitting care of the physician, as in tracheotomy.

11th. It is a more successful method of treating croup, either diphtheritic or membranous, than tracheotomy.

In a recent number of the *New York Medical Record* (June 5th, 1886), Dr. O'Dwyer reports the results of the treatment with his tubes of a case of syphilitic stenosis of the larynx in an adult. The stricture of the larynx was such that immediate tracheotomy had been advised by another surgeon. Dr. O'Dwyer introduced through the stricture his smallest adult tube. It remained in the larynx fifty-six hours, when it was removed on account of the pain it caused. During

the time the tube was in the larynx the patient swallowed solids without much difficulty, but fluids produced more or less coughing. Five days later a larger tube was inserted, which, after having been in the larynx twenty-four hours, was coughed out. The following day a still larger tube was used, which caused some pain and irritation, and was expelled after having remained in position fourteen hours. The patient remained under treatment about three weeks, when she was discharged from the hospital with ample breathing space in the chink of the glottis, and no dyspnoea. She was readmitted two and a half months later, as the dyspnoea had returned. Examination showed that this was caused by subglottic stricture, as there was no material change in the larynx since she was discharged. Treatment was resumed for twenty-seven days, with tubes of gradually increasing size, when the stricture was again sufficiently dilated. The tube is now introduced once in two weeks, and allowed to remain in over night. Dr. O'Dwyer states that he soon intends to increase the interval to a month, which he believes will be often enough to prevent a recurrence of the stricture.—*Franklin H. Hooper, M.D., in Boston Medical and Surgical Journal.*

The question of operation in croup or laryngeal diphtheria may be said to be yet *sub judice*, although of late years the tide of professional opinion has been setting strongly toward the side of surgical interference. And although authorities are now almost unanimous in advising that tracheotomy be employed at one time or another in membranous croup, rather than to let the child die from strangulation, they are by no means at one in counselling an early operation, some maintaining that it should be undertaken immediately upon the appearance of the first sign of stenosis, others averring that it is a desperate measure, which is justifiable only when all other means have been tried in vain. And practitioners in general are still very loath to even suggest what they are wont to regard as an heroic measure and one of little practical utility. There is much reason for this. The parents and friends are naturally distressed at the thought of an operation, and, unless they can be assured of its success, will often refuse their assent to its performance. Again, tracheotomy is by no means the simple procedure which some of its enthusiastic advocates, with a greater fund of theory than of practical experience to draw

upon, would assume. Tracheotomy performed on the living subject, especially a child, struggling for air, with the larynx rising and falling at each labored respiration, and with the blood pouring from the turgid veins to obscure the delicate field of operation, is one of the most difficult tasks of the surgeon, and, taking into consideration the problematical chances of final success, is one which he assumes with no light heart. It is, therefore, not surprising that the operation has been slow in gaining recognition as a justifiable therapeutical measure, despite the fact that many lives have been undeniably saved by its timely performance. And if any more simple operation could be devised which could be shown to be of at least equal value, it would be welcomed.

We referred recently in these columns to the method of intubation of the larynx first proposed and practised by Dr. Joseph O'Dwyer, of New York. This method does away with the use of cutting instruments, and consists simply in the insertion of a tube of peculiar shape between the vocal cords, thus permitting of the passage of air into the trachea. Dr. O'Dwyer's experiments have been conducted very unostentatiously, and it is only through some very recent publications in the journals of New York and Chicago more particularly, that we have been able to obtain any data upon which to base an estimate of the merits of the procedure. Every new therapeutical measure must be judged by its results, and if on extended trial it cannot prove that it is better than some older and tried remedy, it deserves to, and surely will, fall into oblivion.—*Therapeutic Gazette*.

DR. ABBOTT ON "THE DISINFECTANT VALUE OF STANNOUS CHLORIDE" IN THE *Medical News*.—Stannous chloride may be used instead of corrosive sublimate on the following grounds: It is comparatively safe and does not corrode the pipes; it is also cheap. A one per cent. solution kills spores after an exposure of two hours. It is considerably more active than zinc chloride, copper sulphate, zinc sulphate and ferric sulphate. When intended to be kept for use it should be made up with an equal weight of ammonium chloride, which prevents the formation of the insoluble oxychloride of tin.—*Medical Chronicle*.

A CASE OF UNUSUAL RETENTION OF THE CANULA AFTER TRACHEOTOMY.

By Dr. EDMOND SOUCHON, Professor of Anatomy and of Clinical
Surgery, Tulane University of Louisiana.

In the month of September, 1882, towards 5 o'clock in the afternoon, I was called in a hurry to visit the young child of Mr. S., which I was told was suffocating. Upon arriving at the house, I was informed that the child, a pretty little girl of four years, had been running bare-footed in the rain which had fallen that day. She was breathing hoarsely and with difficulty, but presented no symptoms of asphyxy. There were no membranous deposits of any kind in the throat and but few scattered râles in the lungs. I diagnosed the case bronchitis with œdema of the glottis. I prescribed the usual remedies and left. At 10 o'clock the same night I was called out again to see the child. Its condition was much worse. The breathing was hoarser, the face was turning pale, the lips slightly blue; throat was clear, but the mucous râles in the lungs had increased. Although I am, of course, decidedly in favor of early operation, I did not want to hurry too much, as I have seen many such cases get well without surgical interference; I insisted upon foot-baths, mustard, ipecac, etc., and as I knew well how rapidly these cases will grow worse in spite of all, I told the father to come at once for me if the breathing became worse, or if the lips got more blue. It was past midnight when he came for me, telling me that the child was worse than it had ever been. I hurried there, calling on my way upon Dr. Touatre to be so kind as to assist me if necessary. Upon reaching the child, it was found to be asphyxiating rapidly; the face was pale and ashy and covered with perspiration, the pupils much dilated, the lips very blue, as also the end of the fingers, the breathing hoarse, hard and difficult; the child restless. The operation was proposed to the father and mother, and urged as a pressing necessity, without which there was no hope. After some little hesitation on the part of the mother, she turned the child over to me, or, rather, I took it away from her, as the little patient was sinking rapidly. It was placed on a table in the adjoining room and the operation proceeded with as rapidly as pos-

eible with a restless child and bad candle-lights. The skin was incised, and the first ring of the trachea hooked firmly with a tenaculum to steady the trachea and at the same time raise it to the surface and pull it up from the sternum. This had barely been accomplished when the child became motionless, stopped breathing, and its little eyes remained opened, fixed and glassy ; we took it to be dead, and were satisfied that it would have remained dead if left alone. The operation was rapidly completed without any trouble now, and as soon as the canula was secured in place we began to revive the child ; the head was lowered, Dr. Touatre slapped the face and precordial region with the end of a wet towel and I practiced artificial respiration. After a minute's time the breathing was re-established and the child all right. From then things went on very well up to the ninth day, when, finding the child as well as possible, I attempted to remove the canula. As soon as this was done the breathing became very hard, hoarse and difficult, the child threw its head back and the face became blue all over. The canula was immediately reinserted, which was done without the least difficulty, and all the above symptoms disappeared. At the end of another ten days I made a new attempt to remove the tube, but all the same troubles reappeared and the canula had to be reintroduced at once. A third attempt was made later on with the same results, much to my annoyance and dissatisfaction. It had to remain in for three long months before it could be left out entirely without trouble. The child is now perfectly well, with no alteration of the voice. I have never seen, read or heard of such a case before, where the larynx was not organically and chronically diseased, and yet a tube had to be left in three months after an operation for a mere œdema of the glottis. Whenever I removed the tube I tried to see what the cause of the obstruction was, but never could succeed. To this day I do not know positively what the real cause of the trouble was. I can only conjecture that the wound in the trachea had granulated to an unusual extent, as the external wound does, and that one or two or several granulations which were kept apart by the tube contracted and closed more or less the internal opening when the tube was removed. In course of time they shrunk and ceased to obliterate the opening. I thought, of course, of using the laryngoscope, but in a young child it is almost sure to give no satisfactory result.

This case is, therefore, remarkable on account, 1st, of its nature, a mere œdema of the glottis, that is, a swelling with more or less effusion in the aryteno-epiglottic folds; 2d, the rapidity of its course—the child was well at 3 P. M., and had to be operated on at 12 M., that is, nine hours; 3d, by the impossibility for the child to breathe without the tube for three months; 4th, the obscurity of the cause of the obstruction to the breathing.—*N. O. Medical and Surgical Journal.*

NECROLOGY.

DEATH OF WILLIAM O. BALDWIN, M.D.

On May 30th, 1886, Dr. Wm. O. Baldwin died at his residence in Montgomery, Ala., where he had practiced his profession since 1837. Dr. Baldwin was born near Montgomery, August 9, 1818. His mother was the sister of United States Senator Benjamin Fitzpatrick, who was formerly Governor of Alabama. After receiving a thorough collegiate course, he took a course of reading in Montgomery, and then attended lectures at the Transylvania University, Kentucky, from which school he graduated in medicine in 1837. He took a very high stand in his class, and, at that time, gave promise of a very brilliant future. After graduating, he returned to Montgomery, where he was associated in practice with Dr. William M. Bowlm, for more than ten years, during which time he spent one year in Europe, where he visited many of the best institutions of medicine and surgery. He was a very active member of the Montgomery County Medical Society, and had been honored with all its highest offices. He was also a member of the Alabama Medical Association. He was present at its organization, and was afterward elevated to the office of President, which he filled with his characteristic ability. His contributions to the Transactions of this Association are very valuable, and reflect much credit upon the profession of Alabama. Also, his contributions to journal literature have won him no little reputation in this field. His "Observations on the Poisonous Effects of the Sulphate of Quinine" was one of his first contribu-

tions to medical literature, and was quoted both in this and foreign countries. He was devoted to his profession, and was ever willing to sacrifice much for its interest. While a great sufferer from the late war by the loss of much property, but more especially in the loss of his son, Capt. Wm. A. Baldwin, who was killed while leading his company in a bloody charge at Franklin, Tenn., still Dr. Baldwin, although this was the most severe sorrow of his life, did not lose sight of his profession's interest, and when the physicians of the South were invited to reunite with the American Medical Association, he at once advised them to accept this invitation, and attended the next meeting in Washington City in 1868. At this meeting he was elected to the presidency of this great organization, which was a fitting recognition of his great ability as a physician and worth as a man. It was at its next meeting in New Orleans that he presided, and delivered a message, as President, which filled every reader of its contents with joy and brighter hopes for the welfare of this country. It was full of patriotic sentiments, so beautifully expressed that it created a sympathetic feeling between the two sections, which has continued to increase since that time till the present, and was one of the first moves of reunion which have bound the North and the South so inseparably. His profession never ceased to confer their highest honors upon him, for only a short time before his death he received the nomination of First Vice-President of the International Medical Congress, to convene in Washington City in 1887.

Dr. Baldwin was a man of very studious habits, and hence became well informed. His knowledge was not limited to one subject, but he was thoroughly posted upon all. He possessed much natural ability, and with his ambition and application it is not surprising that he had arisen to such an exalted and enviable position in his profession. Few men of the South have been so highly honored as Dr. Baldwin, and none have been more worthy. He enjoyed a lucrative practice in Montgomery as long as he was physically able to perform its duties. He had accumulated considerable wealth, and was, at the time of his death, President of the First National Bank in Montgomery, which position he had filled since it was founded. He was a man of very fine financial ability. Six children survive him, two sons and four daughters. How much he was appreciated at home is well shown by the throngs of people that

attended his last sad rites. It is said that, as the hour of the funeral approached, the whole of Montgomery was moving toward the residence of Dr. Baldwin. People were there of every nationality and creed. There were no distinctions of religions or people in testifying the great esteem in which he was held. The floral tributes were of great beauty, and typical of the affection of those who sent them in such numbers. The procession was the largest that Montgomery has known for many years. They thus testified not only to his greatness as a physician, but the esteem with which he was held by his people as a great friend, who was capable of being their advisor and counselor.

In his death the medical profession has lost one of its brightest lights, Alabama her greatest physician, and Montgomery a citizen for whom any city would mourn.

"Thus pass away the men of might,
Whose noiseless footprints stamped the age;
Their thoughts that filled the earth with light
Still glow and blaze on memory's page.

"There's no death;
The stars go down to rise upon some fairer shore,
And bright in Heaven's jewelled crown
They shine forevermore."

—*Alabama Medical and Surgical Journal.*

RESECTION OF FIVE FEET OF INTESTINE.—Th. Kocher, of Berne, reports in the *Correspondenzblatt* a case in which he removed five feet of gangrenous intestine. The patient was a laborer, aged 57 years, who for many years had had a right inguinal hernia, about as large as a hen's egg; he entered the hospital suffering from an incarceration of the hernia, of twenty-four hours standing. Herniotomy was at once performed, and the intestine was found very œdematous and gangrenous. As the gangrene was very extensive, Kocher decided to perform resection rather than allow the gut to remain. The operation was performed under antiseptic precautions; thirty arteries had to be tied in the mesentery; after a drainage-tube was inserted, the wound was closed. The feeding was chiefly rectal. The wound healed without reaction or complications, and the patient was considered cured after eighteen days. Later on, he said that he had never felt better.—*Hospitals Tidende—New Orleans Medical and Surgical Journal.*

LANOLIN.

We gather from the *Therapeutic Gazette* for June that this new base for ointments is obtained from the alkaline water-washings of wool. It is a fatty body, consisting of fat acids, cholesterin and a varying percentage of water, forming a smooth, white, homogeneous mass of unctuous feel. Dr. Thomas G. Morton, of Philadelphia (*Medical News*), exhibited several specimens of the preparation, and says those who have used it are pleased with it in ointments for external application, as it can be readily rubbed into the skin, and it appearing that substances combined with it will be more readily absorbed than if combined with other bases. Its combination with water is remarkable. Dieterich, by experiment, determined the following as the quantity of water taken up by the different salve-bases named at 15° C. ; camoline 4 parts; lard 15; benzoinated lard 17; and lanolin 105. Dr. Keen, says the *News*, has used it quite freely of late, and reports one case of a child 8 years of age, with enlarged gland under the jaw, for which he ordered an ointment of 2 grains of iodine to a drachm of lanolin. In a week the swelling had entirely disappeared. This was a more prompt effect than he had ever seen from any other iodine applications. Lanolin has no tendency to become rancid, combines readily with fats, oils, balsams and most medicinal substances, and is unrivalled in its absorbability, assuring the greatest amount of allowable efficiency of medicines mixed with it.

It has been exhibited with good effect in psoriasis, herpes tonsurans, chronic dermatitis and the skin diseases marked by a callous epidermis. The *Gazette* advises that twenty per cent. of lard be mixed with the lanolin in ointments to secure its consistency.

TREATMENT OF MENORRHAGIA.—In young girls, as a rule, a powerful tonic treatment is required. Sometimes the iron is not sufficient, and I have to resort to astringents and tonics not ferruginous. I have used bichloride of mercury and quinine in these cases. Occasionally we meet with cases of this kind in which the patient apparently is in robust health. Under such circumstances I know of nothing better than iodide of potassium.—*Dr. Wm. Goodell.*

ANNUAL MEETING OF THE NORTH CAROLINA BOARD OF HEALTH.

NEW BERN, N. C., May 19, 1886.

The regular annual meeting of the North Carolina Board of Health was held in the Gaston House on Wednesday and Thursday, the 19th and 20th of May, 1886. There were present Dr. J. W. Jones, President of the Board, Drs. McDonald, Lewis and Hilliard, and Mr. Arthur Winslow and Prof. Simmons.

The minutes of the last meeting were read and approved.

The President appointed on the Auditing and Finance Committee Drs. McDonald and Hilliard, and Mr. Winslow.

Suggestions were asked for for a better mode of getting accurate reports on mortuary statistics.

Dr. McDonald thought in a State so sparsely settled as ours it will be a very difficult thing to get a report which will be worth anything. He said in his county there are three physicians who take the position of Superintendent of Health time about and the pay the County Commissioners allow is greatly inadequate to the services rendered. During his term of office he sends blanks to the physicians throughout the county and receives no responses from them whatever.

Dr. Hilliard suggested that each member of the Board take the section of the State in which he lives and try to stimulate the physicians in that section to work. That he should have personal conversation with them when possible, and when not to write letters.

Dr. McDonald offered a resolution, which was adopted, that the Secretary write circular letters to the postmasters in the county towns in the counties having no Superintendent of Health and ascertain who is the physician to the county, and try through that individual to get such statistics as will be of use.

Dr. Lewis said the county superintendents will not examine the prisoners sent from the county jails to the penitentiary because the commissioners will not make special provision for their receiving proper remuneration for such services. He thought it a good idea to interest the penitentiary authorities and the Governor in having the physician of the penitentiary inspect accurately each prisoner

on his arrival. When they see the good to be derived from such a course—that it will materially diminish the high death-rate among the convicts, for which they have been from time to time censured—he thinks they will readily comply with the recommendation. He regards the high death-rate among the convicts sent to the camps as resulting from the employment of men incapacitated for that kind of work. Nearly every report coming from the physician in charge of the convict camps shows men with phthisis and heart disease working on the railroads.

On motion, Dr. Lewis and Mr. Winslow were appointed a committee to consult with the Penitentiary Board and the Governor concerning these examinations. The following preamble and resolution for presentation to the Board and the Governor was adopted:

WHEREAS, It appears from the reports of the stockade physicians that among the convicts are many cases of heart, lung and other organic diseases, incapacitating them for such work as they are compelled to perform, and believing that an intelligent physical classification of all convicts would promote the ends of humanity and secure a decrease in the death-rate; therefore,

Resolved, That a committee of two be appointed to wait upon the Governor and Board of Directors and urge upon them the great necessity for a careful examination and classification of all prisoners.

On motion of Dr. Lewis, the Secretary was directed to write letters to all the circuit judges in the State, asking them, in sending the grand juries to inspect the jails and poor-houses, to charge them especially as to their sanitary condition, and also to request the county superintendent of health to accompany them on their visits of inspection that they may give them such information and suggestions concerning their sanitary condition and requirements as he may deem proper.

The President read a communication from the President of the Women's Christian Temperance Union, which, being without the sphere of the Board, was left to the President to reply to as he thought best.

It was decided that no advertisements be asked for for the "Bulletin" as long as the Board was able to publish it out of the regular appropriation for that purpose.

Dr. Lewis spoke of the evil resulting from the use of well-water for drinking purposes.

Dr. McDonald showed the difference between the effects of good and bad water—in his section, well-water is bad water—by citing the case of two families living side by side, one using cistern-water and

the other well-water. The latter were nearly always sick with malarial troubles, while the former were hardly ever sick. He recommended driven pumps, which vary from 30 to 50 feet in depth. In his locality they rest on a marl bed, and at first only sand is pumped out. This vacuum then fills with water which must be pure, as nothing can get into it to make it impure. On the coast it has been a great trouble to get water fit for use.

Adjourned until 2 o'clock P. M. Thursday.

SECOND DAY.

NEW BERN, N. C., May 20, 1886.

Meeting called to order at 2 o'clock.

Prof. Simmons said he had been unable to procure the instruments for the establishment of voluntary observatories in the State, Gen. Hazen saying the service could not furnish them free of charge. He, however, ordered the Government observers throughout the State to send monthly reports in to him, and also furnished him with free postage and sold him a set of instruments at first cost for the establishment of a station at Wake Forest.

On motion, the Secretary was instructed to write to Dr. P. L. Murphy, of Morganton, asking him to send monthly meteorological reports to Prof. Simmons.

Dr. McDonald read the following report of the Treasurer :

Disbursements:

Postage.....	\$	53	93
Expense of meetings.....		396	50
Secretary's salary.....		1,200	00
Sundries.....		453	53
Total.....	\$	2,103	96

Receipts:

March 22, D. W. Bain.....	\$	500	00
June 1, ".....		500	00
September 4, ".....		500	00
December 4, ".....		500	00—
	\$	2,000	00
Balance due Secretary.....	\$	103	96

The Finance Committee made the following report :

Having examined the itemized report of the Treasurer, we recommend its adoption as recapitulated above; also, that the Salary of the Secretary begin at the time the appropriation was first accessible (January 1st, 1885).

We recommend, also, that the sum of five dollars per month be allowed for office rent for the ensuing year.

Also, that Prof. Simmons be reimbursed for his outlay of \$80.15 for meteorological and scientific instruments for the Board of Health, to be paid out of the next quarterly installment of the annual appropriation.

JOHN McDONALD,
W. D. HILLIARD,
ARTHUR WINSLOW.

Dr. McDonald moved that each member of the Board make an inspection of the drinking-water in his territory, and report to the President, with recommendations for the improvement of the same, to be published in a condensed form in the "Bulletin."

After the discussion of sundry subjects, the Board adjourned *sine die*.


MYRTOL.—Myrtol has only been, hitherto, studied as a curiosity. Dr. Linarix, in his doctrinal thesis, *De l'Emploi du Myrtol*, gives a complete account of the properties of this substance. Myrtol is both an antiseptic and a disinfecting agent. By its presence it prevents the decomposition of fermentative and putrescible organic substances; applied to the skin, it does not produce the slightest irritation, if the epithelium be intact. If there be a slight abrasion, a few drops produce a very trifling burning sensation, which quickly goes off. Myrtol stimulates the digestive faculties; all who use it find their appetite increased. In small doses, it acts as a sedative. It is eliminated by the lungs and kidneys, and has also a powerful balsamic action, but is more easily tolerated than most balsams. Its use is not followed by dyspepsia, nor by any of the other troubles attending the use of balsams in general. Dr. Linarix says that myrtol does not produce the same result at all periods of the affections of the respiratory system; in subacute and chronic catarrhal affections it should be administered when fever has subsided, then the sputa become less abundant, also less purulent. Six capsules daily, each containing fifteen centigrammes of myrtol, form a moderate dose, which should be taken before meals.—*British Medical Journal*.

EDITORIAL.

THE NORTH CAROLINA MEDICAL JOURNAL.

A MONTHLY JOURNAL OF MEDICINE AND SURGERY, PUBLISHED IN
WILMINGTON, N. C.

THOMAS F. WOOD, M. D., Wilmington, N. C., }
GEO. GILLET T THOMAS, M. D., " } Editors.

 *Original communications are solicited from all parts of the country, and especially from the medical profession of THE CAROLINAS. Articles requiring illustrations can be promptly supplied by previous arrangement with the Editors. Any subscriber can have a specimen number sent free of cost to a friend whose attention he desires to call to the JOURNAL, by sending the address to this office. Prompt remittances from subscribers are absolutely necessary to enable us to maintain our work with vigor and acceptability. All remittances must be made payable to THOMAS F. WOOD, M. D., P. O. Drawer 791, Wilmington, N. C.*

A NEW WORK FOR THE STATE SOCIETY.

The adverse decision of the Society to the proposition for the establishment of a medical department at the State University, and the reasons of the majority of the committee who had it under consideration for their opposition to the movement, seem to us to be both just and practical. But there is behind this motion the worthy incentive which gave it birth, that the State Society should be active always in the promotion of any means which shall urge and assist the young men in the State to obtain a good medical education at a well ordered school of medicine. That was both the object and is the practical result of the work of the Board of Examiners. For the rigid scrutiny that this body has established over the qualifications of physicians offering themselves for practice, has

secured for the profession a class of young men better equipped than were their predecessors—coming fresh from schools where they have studiously applied themselves to be able to so creditably acquit themselves as to secure the license from the State authorities, as well as to obtain the diplomas which mark the successful termination of the scholastic life. Welcoming these young men to its ranks, and anxious to stimulate them to further endeavor, the Society has offered prizes for essays on different subjects pertaining to medicine, and to these Dr. N. J. Pittman, a man full of years and honors, and endowed with the graces of generous learning, has added another and larger one than any single one of the Society prizes, to be given for the best report of original work in the science of medicine. Such we regard as the intention of our honored brother.

These have been the efforts of the Society, first to improve the standard of the education of the physicians in the State ; and then, to keep alive the energy which the necessity for earnest study has inspired, they propose generously to stimulate the members to new work by making the labor bring a pecuniary reward. Now, in addition to these worthy efforts, there seems to us a new work opening for the Society, in aiding such young men as are unable to complete their education, by a donation from its own funds, or from funds raised for this special object and placed at the disposal of the Society. To secure proper persons upon whom to bestow these annual or biennial stipends, it should be necessary that the applicants submit to a competitive examination upon such subjects as the Society may choose, the general character of the examination being to test the elementary education of these persons, as well as to give some idea of their mental capacities. The details for the whole matter are few and simple, if the Society should favorably consider the scheme, and we offer it as a suggestion, if thought practicable, that a committee of competent persons, members of the Society, shall carefully canvass the proposition, offer this aid in such amounts and at such times as may be deemed prudent, and formulate the rules to govern the examination, and the basis of favorable decision for the competitors. Preliminary examinations will, in the near future, be indispensable to the study of medicine at the best schools in this country, and it will be consistent with the history of our Society to be pioneers to this extent in this movement.

MANURE HEAPS AND DIPHThERIA.

There is an excellent opportunity offered for the collection of statistics upon the connection between manure heaps and outbreaks of diphtheria in the reports to be made by county superintendents of health to the Secretary of the State Board, and published in the monthly "Bulletin."

There is a growing belief that many cases of this disease in small villages and on farms are due to unhealthy heaps of manure being so near the dwellings of the owners as to be a cause of disease *per se*, or indirectly, by poisoning the drinking-water. The JOURNAL will be glad to know that a suggestion is well received to watch the appearance of diphtheria in the counties of the State, and to note the connection, if any, to unwholesome accumulation of ordure of any sort about the premises on which the disease prevails. The statistics will be valuable, and may serve to explain the cases of diphtheria in isolated and otherwise healthy localities, and which have so far been without known cause. The season for the increase of cases is near at hand, and we think it is none too soon to ask at the hands of county sanitary officials a careful study of the disease, to be reported through the "Bulletin." Or the JOURNAL will be glad to have the result of that investigation, as well as those of the physicians at large in the State who take an interest in the matter, and will make a report of their cases.

ACTION OF PANCREATIC JUICE.—The new researches of M. De-fresne have authorized him to express this opinion, *viz*: that the pancreatic juice at the commencement of a repast, passes into the state of zymogen in the circulation, and is afterwards separated by the liver, the parotid glands and the spleen. In the liver it becomes a hepatic zymosis, capable of saccharifying glycogen; in the parotids, a ptyalic zymosis, capable of saccharifying starch in the mouth; and in the spleen, a zymosis which, transmitted to the pancreas, communicates to the juice of this gland the property of saccharifying starch in the duodenum. These experiments demonstrate the good results which may be obtained by administering pancreatine by the stomach.—*Journal of the American Association.*

REVIEWS AND BOOK NOTICES.

HAND-BOOK OF PRACTICAL MEDICINE. By Dr. HERMANN EICH-HARST, Zurich. Vol. I. Diseases of the Circulatory and Respiratory Apparatus. Illustrated. Wm. Wood & Co. New York

This book is peculiar in the abrupt manner in which the author enters into the immediate study of diseases of the circulation, this constituting the opening section of the work. The preliminary chapters commonly found in treatises on practice of medicine, are missing, and we are inclined to feel relieved at their absence. This particular only seems to justify the calling this work a hand-book, and we deem it a mark of great modesty in the author to speak in such terms of his full statement of all points of diseases of which he treats. Throughout this section on the circulation the importance of sphygmographic tracings are insisted upon, and copious illustrations of the mode of examination are found in the earlier pages of the volume. This section contains a practical account of diseases of the pericardium, the heart-muscle, the endocardium, of neuroses of the heart and diseases of the aorta. The study of the affections of the endocardium is the fullest of these, and seems to us to be the most skilfully written. The article opens with septic endocarditis, the origin of which is definitely declared to be bacteriæ. We confess, however, to a feeling of disappointment in reading his description of symptoms, which so nearly approach those of typhoid fever, on the one hand, or intermittent fever on the other, without definite symptoms referable to the diseased heart, that an autopsy seems to be the only way to reach a complete knowledge of the malady. The author says: "The chief aid in diagnosis is the appearance of embolic processes in the skin, the retina and the central nerve structures, emboli being the natural result of the disease, the vessels depositing them at any point in the circulation."

Of the nature of angina pectoris, p. 149, he says recent writers regard this a disease of the ganglionic system of the heart, special importance being attached to implication of the cardiac-plexus, made up of fibres of the pneumogastric and sympathetic, thus explaining the frequency of the disease in aortic disease, the plexus being beneath and behind the arch of the aorta. So, too, the inti-

mate nerve supply of the coronary arteries with the plexus explains the connection of the pain with disease of these vessels. For treatment, morphine hypodermatically holds the highest place, but caution is necessary in giving it to persons with fatty hearts. Amyl nitrite, nitro-glycerine and other old and well-known remedies are mentioned.

Diseases of the larynx are illustrated very freely by laryngoscopic pictures, and the microscope has done the same work for the sputa in bronchial affections.

In Part V. we find a most exhaustive and satisfactory article on hæmoptysis, probably as complete as any now in print in a work on general practice. Following this are descriptions of diseases of the lung, pleura, pulmonary artery and mediastinum.

The work is written in a concise, but clear manner, and will be found instructive reading.

MEDICINE OF THE FUTURE. By AUSTIN FLINT, Sr. The Address Prepared for the Annual Meeting of the British Medical Association, 1886. D. Appleton & Co., New York.

Dr. Flint had arrived, by right of years, intellect and unceasing study, at a point where he was entitled to calmly look ahead, and, without labored argument, forecast the coming days of medicine. He admits of no halt in the progress that must follow in the work that is doing everywhere, and in outline sees the development which the future certainly promises. He inclines towards the studies of the analytical chemist for more light in the true nature of the actions of the body in health and disease, with the belief that this branch of knowledge must carry investigation beyond the limits of the microscope, with all its increased lens, or new staining processes, or the best work of the spectroscope.

"Histology," he says, "may disclose agents, but it leaves us in the dark as regards the agencies." For an explanation of functions, the processes of nutrition and growth and the appearance of morbid products, the effect of agents, as poisons, on the actions of the body, we must look to the chemist, and not to the histologist.

The sense of hearing in the improvement of instruments is to aid, if not in many instances replace the sense of sight in the progress of medicine. In his enthusiastic hopes for their development he says that interthoracic sounds may be transmitted from the patient to the physician, no matter how far separated from each other they may be, and

these sounds may be phonographically preserved to be sent to a distance or kept for an indefinite period. He says that increasing experience will bring back venesection to be employed judiciously, and in skilful avoidance of the evil effects of the potential remedy, gain all the good that may come from so valuable a remedy rightly employed, restoring to its place what the late Prof. Gross has called "A Lost Art in Surgery."

Bacterial etiology being admitted, the future of medicine will consist more in prevention than in cure and in the substitution of hygienic measures for potent medication. There is to be improved and reformed, may we say compressed, medical literature, and increase of clinical, with less didactic teaching, to help on the future of the growth of medicine. The excessive development of specialism in medicine he regards as one of the dangers that menace the future, and he sounds the timely warning.

We cannot close this short notice of the last work of the great man without reference to the Christian spirit that marks it—a notable thing in these days of scientific skepticism. "The past history of medicine shows a law of progress; hence medicine will continue to progress. If we believe in an overruling Creator and Governor of the universe, everything, however great or however small, must be in accordance with a divinely ordered plan. The prevention and the successful management of diseases also enter into providential design. The past gives an assurance of progressively increasing security of human life from diseases. The progress of medicine belongs, therefore, in the order of Providence." Such is his faith, and its expression and the address which it adorns, are a fitting after-piece to so great and useful a life as that of the lamented Flint.

HYDROPHOBIA EXPERIMENT.—The first inoculation against hydrophobia ever done in America was performed July 5 by Dr. Valentine Mott, in the Carnegie Laboratory. Dr. Mott's patient was Harold Newell, seven years old, who was bitten by a dog presumably mad June 24. The inoculation was made from a solution of hydrophobic virus obtained by Pasteur himself from the brain of a dog dead from rabies, and transmitted by him through 110 rabbits. —*Journal of the American Medical Association.*

CORRESPONDENCE.

LONDON LETTER.

LONDON, June, 1886.

EDITORS N. C. JOURNAL:--As I have been attending at "Moorfields" now for several weeks, I can give you some account of the work there. The hospital is commonly called Moorfields, from the old name of that part of London in which it is situated. Its real name is Royal London Ophthalmic Hospital. It was founded in 1804, the first of its kind in the world, as it is also the largest. The number of cases treated as in-patients in 1884 was 2,028, as out-patients 23,568, with a total number of attendances of 117,840. It constantly increases, and this year will be much larger. The facilities for learning the diagnosis and treatment of diseases of the eye are admirable. You have an opportunity of watching the practice of men of the very first rank, with a supply of material practically unlimited. The fee for an attendance of six months is three guineas, or about \$15.75 of our money. The attending surgeons are Hulke, Lawson, Cowper, Tay, Tweedy, Nettleship, Gunn and Lang. Three of these are present every day. Before the patients come into the examining room they are seen by an official of the institution and given a paper with the printed name of the surgeon to whom each has been assigned. On these the surgeon writes the diagnosis, notes of the case, if it is an interesting one, and the prescriptions, and the patient is told to preserve it carefully. A few days ago an old man presented a paper that he had received fifty-two years ago, but of course they are frequently lost. Each surgeon has an assistant, who has a desk of his own. The surgeon sees, as a rule, the new cases only; when they come the second time they are turned over to the assistant. The six desks are in the same room, placed in a row, and you frequently see a crowd of patients standing in a line before every one. Besides the assistants mentioned there are several others, called clinical assistants, who do most of the ordinary work in correcting errors of refraction, and are generally students who have been in attendance for several months. This work goes on in the rear of the row of desks in the same room, and when you add from eight to a dozen students and casual medical

visitors who surround the surgeons or their assistants, you have a very busy scene. The room is rather small for the purpose, and is at times unpleasantly crowded. Having all the work going on together, however, is a great advantage. You can pass freely from one desk to another; you can devote the whole time to new cases at one, or go to the next and see the result of treatment in the old ones. With all this work, however, the surgeons are not so busy that they do not stop to give points on interesting cases, and they always readily answer any questions and respond freely to requests for fuller information in regard to any case. Little impromptu lectures are frequently brought out in this way. Cases requiring examination with the ophthalmoscope are taken into the large dark room adjoining the general examination room. Here there are movable gas-burners and seats for the use of the ophthalmoscope with twelve patients at one time. Students are allowed to examine cases.

The work usually begins at 9 o'clock, and at about 11 the house surgeon has the previously selected cases ready for operation, and one of the surgeons goes up stairs to the operation room. This is announced by the ringing of an electric bell, and anyone is at liberty to be present. When one man finishes another takes his place, there being usually three operators every day. The number of cases varies, of course, but when the total of operations of all kinds is 3,564 in a year, as it was in 1884, the number on any particular day is rarely insignificant. I have seen as many as five cataract extractions in one morning, the average being not far from two. Other operations are in proportion. All the operators whom I have seen use both hands, and each with apparently equal ease and skill. I am told by a man just from the continent, that there an ambidextrous man is the exception, and not the rule; so that, it is not at all essential, of course, for one to be able to use either hand. None of those mentioned above are in any special degree noted as skilful operators, as the elder Critchett was in his day, but Nettleship, Tweedy, Cowper and Lawson are all first-rate, not to mention others. We not only have the advantage of comparing the different methods of such men, but are also able to hear them discuss their differences among themselves, for two or three are frequently present at the same time. And as this is the center of ophthalmic practice in London, when distinguished foreigners are in the city we often have the benefit of their views, as was the case in the visits recently of Landolt and Galezowski, of Paris.

I was surprised to find that the practice of so many of the men who are distinguished oculists is not limited to the eye. Three, at least, of the staff of this hospital have appointments as surgeons to general hospitals.

In addition to this regular work of the hospital, two private courses of practical instruction are given. One is by Mr. Gunn, in the use of the ophthalmoscope. At each of the meetings of the class there is a short lecture on the condition of the eye in disease, as seen with the ophthalmoscope, but most of the time is spent in the actual examination of cases. There are several patients present each time, and each student examines them all. Mr. Gunn writes on a blackboard the appearances he finds, and is always present, directing the work and explaining difficult points. The other course is on errors of refraction, and is by Mr. Lang. It is on the same general plan. Patients appearing at his clinic in the morning having errors of refraction, are reserved for the meetings of the class, and the errors are then worked out and the glasses prescribed. All the ordinary methods of detection are employed, but special attention is paid to retinoscopy or the shadow test. This is by far the most valuable objective method, and is very satisfactory. It requires practice to become expert, but the more I use it, the better I like it. These classes are held at night, and so do not interfere with the other work. The number of students is small, and we are not overcrowded.

For a practical course in the operations on the eye, I have to go to the post-mortem room of St. Thomas' Hospital. This is conducted by Mr. Lawford, curator at Moorfields, and assistant ophthalmic surgeon at St. Thomas'. The class, which is limited to four, meets in the early morning, so that, after it is over, we can, by the aid of the Underground Railway, reach Moorfields, several miles away, in time to see the work there. St. Thomas' is one of the largest London hospitals. The building is an imposing modern structure, elegantly fitted up. It occupies a fine situation on the Albert embankment on the south side of the Thames, just opposite the houses of Parliament. Its seven large pavilions, jutting out at right angles to the main building into well-kept grounds, present a very handsome appearance, as seen from the opposite side of the river. The Medical School Building adjoins the hospital, and is supplied with the best appliances in every department. The museum, especially, is very large and well arranged.

My afternoons are spent at Dr. Morell Mackenzie's Throat Hospital,

in Golden Square. I had provided myself with an introduction from Dr. Bosworth, of New York, and when I called at Dr. Mackenzie's house I was very cordially received. He is a man of very distinguished appearance, is six feet or more in height, and well proportioned, and has a strong and handsome face. He lives in a region in the west end of London, that is almost entirely given up to the medical men—the neighborhood of Cavendish Square. In walking through it you read on the brass door-plates the names of such men as Paget, Clark, Hutchinson, Bryant, Erichsen, Jackson and numbers, of others famous the world over. He told me that he was now only a consultant at the hospital, and no longer held a clinic there, but that it was kept up just as before, and referred me especially to the surgeon who took his place, Mr. T. Mark Howell. He was Mackenzie's assistant for several years, and is regarded as a second Mackenzie. I found that Drs. Woakes, Whistler and others also held clinics at the same hospital.

Fortunately, all the work is done in the afternoon, and does not conflict at all with the clinic at the eye hospital. In the out-patients' room there are lamps and appliances for the examination of several patients at one time. One light is used by the surgeon who sees the new cases, a second by the one who sees the old cases. The few students who are present sit behind and look over the shoulder of the examiner, and when he has finished with the patient, anyone may take him to one of the other lights, arranged for that purpose, and examine him to his heart's content. The surgeon frequently offers remarks about the cases, and takes care that you examine those that are of special interest. The students, that is, those practitioners who attend the clinics and pay three guineas for three months, also assist in treatment, pass the Eustachian catheter and the like, and are frequently allowed to do operations, such as tonsillotomy. Ear cases are treated here as well as throat, especially those depending on throat diseases.

K. P. B., JR.

THE good effects which have occasionally followed the administration of manacæ root in rheumatism is probably due to an alkaloid extracted from it, which it is proposed to call francisceine. It has powerful purgative and diuretic action and is possessed of some diaphoretic and emmenagogue properties.—*London Lancet*.

FISTULA IN ANO.

Miss P. S., white, aged 27 years, consulted me about nine months ago. On examination I found a sinus communicating with the bowels and opening upon the nates, forming a complete fistula. As the opening was high in the rectum, and she was feeble, suffering from menstrual irregularity, I decided to wait awhile before using the bistoury, and prescribed Fellow's compound syrup hypophosphites in tonic doses. She suffered at times from constipation, and occasional clysters of chloride sodium and tepid water were advised. Sometime afterwards I received the following :

DR. :—I have found so much relief from the salt and warm water, that I am using it almost daily. That burning pain has entirely left me, and Fellows' preparation has wonderfully improved my health.

Very respectfully,

J. S.

Two months ago I saw her again, and rather to my surprise the fistula had completely healed and the lady much improved.

Will some medical friend give me his opinion in regard to the salt? Did it exercise any healing virtue in the case, etc.?

Very truly,

W. T. PAUL, M.D.

Atlantic, Carteret co., N. C., July 7, 1886.

THE ALABAMA MEDICAL AND SURGICAL JOURNAL.—We welcome with peculiar interest this new Southern Journal. For some years past the activity of the Alabama profession has been a noteworthy fact, and the excellence of the work done by the profession individually and in the several organizations of the State Medical Society, State Board of Examiners and State Board of Health have been gratifying indications of the progress of medical attainments in the South. No more substantial way could have been adopted to promote the interests of the professional work in that State, and we have evidences in this, the first number of the *Alabama Medical and Surgical Journal*, that the editors are fully aware of the nature of the work they have undertaken. The editors are Drs. J. D. S. Davis and W. E. B. Davis, of Birmingham, Ala. If they are able to maintain their Journal up to the standard of their first number, we are greatly mistaken in the qualities of the Alabama profession if they do not succeed.

NOTES.

SULPHUR SOLUBLE IN ALCOHOL.—G. Bloxam, in *Chemical News* (*American Druggist*) calls attention to the fact that sulphur crystallizes from its solution in hot alcohol in a white prismatic form. One practical point is in the use of rubber stoppers, from which sulphur may be dissolved, making a source of error in delicate chemical manipulations: "If a rubber cork be boiled with alcohol for fifteen minutes, a good crop of sulphur crystals is obtained on cooling the liquid. It is evident that if alcohol be constantly distilled on to a rubber cork the resulting error will be still greater."

Dr. ARTHUR V. MEIGS, in the *Philadelphia Medical Journal*, recommends the following formula for food for infants:

Two	tablespoonfuls	of cream,
One	"	" milk (cow's),
Two	"	" lime-water,
Three	"	" sugar-water.

The sugar-water is made by dissolving $17\frac{3}{4}$ drachms of sugar of milk in a pint of water. The above mixture more nearly resembles in composition human milk than any other he knows of. In case of partial failure to digest the casein, resulting in fecal accumulation, he substitutes three tablespoonsful of water and a level teaspoonful of Mellin's food. He objects to the use of condensed milk, but admits he has seen it answer a good purpose in infant-feeding.

THE *Therapeutic Gazette* recommends that the use of one or two very large doses of the salicylates and the suspension of the drug long enough to prevent its accumulation in the system as the best means to secure its full effect. Only in cases of weak heart should there be fear of cardiac depression following free use of the drug, though the nervous depression which is caused by it may be, and, it is claimed, has been mistaken for a serious impression on the heart. Caution is needed, however, in the use of the salicylates in patients, subjects of chronic aural catarrh, as the tinnitus aurium which salicylic acid produces has been proved to be the result of an irritative congestion of the middle and internal ear.

Dr. W. C. DABNEY.—We are informed that this gentleman is an applicant for the professorship of Medical Jurisprudence, Obstet-

rics and General Practice at the University of Virginia, made vacant by the resignation of Dr. James Harrison. Dr. Dabney is so well known to all the readers of current medical literature, that the announcement of his candidacy for the vacant chair in the University of Virginia will meet with a general desire for his election. We recollect in our student days at the University to have heard the late Dr. John Staige Davis say of him that he was one of the most promising graduates that the school had sent out, and his successful career has justified the opinion of his professor. He has our best wishes for his success. It will not be deemed amiss in this connection to say for many of his old students, that Dr. Harrison held a high place in their esteem, and he will carry to his retirement the pleasant recollections of many cheering words and timely acts of kindness to the young men who were under his charge, both as professor and chairman of the faculty.

THE MALARIAL GERM OF LAVÉLAN.—Dr. Sternberg (*Medical Record*) discusses at length the "Malarial Germ" of Laveran, which, he claims, is not a bacterial body, but an amœboid organism, which is parasitic in nature and infests the red blood corpuscles. These bodies, Laveran asserts, are found in quantities more or less abundant, as the character of the malarial infection is mild or pernicious. In proof of the claim of Laveran, Marchiafava and Celli submitted a number of persons free from malarial disease and from exposure to malarial influence to injection of blood drawn from the circulation of a patient already malarialized, and the fact that attacks of fever followed these injections following the types of malarial paroxysms, after variable periods of incubation, and were all cured by the administration of quinine, seems to these experimenters a fair reason to accept the assertions of Laveran. Dr. Sternberg cites his own laboratory experiments to show that the *bacillus malaria* of Klebs and Tonmási-Crudeli cannot be destroyed by an amount of quinine which it would be safe to administer. But the "amœboid blood parasite," as he designates the discovery of Laveran, is classed among the *infusoria*, and these seem more susceptible to action of the cinchona alkaloids. In a postscript to the article, Sternberg says he had an opportunity to verify the presence of these malarial germs of Laveran, in a specimen of blood drawn from a patient in the outset of an intermittent paroxysm.

The blood was immediately mounted and brought under the microscope, and the demonstration of the amœboid organisms was made to the satisfaction of Prof. Wm. H. Welch, in whose laboratory the examination by the microscope was made, and of several other medical gentlemen who were present.

MEDICAL SOCIETY OF NORTH CAROLINA.—We regret that our report of the proceedings of this Society has to be so materially curtailed. The North Carolina profession is a peculiar one—it seems not to be aware of its own excellence. It is seldom heard from through journals published outside of the State. North Carolina is wanting simply a city sufficiently large for a distinctive medical centre. But knowing personally, as we do, many of the doctors of North Carolina, and having a like acquaintance with many of the profession of other Atlantic States, we are constrained to acknowledge that, rank and file, North Carolina furnishes the best educated doctors of any of these States; and numbers of them, were they to locate in medical centres, would shine out as brilliant stars in the galaxy of great men of the medical profession of America. We attribute a great part of this special excellence to the strict fidelity with which the North Carolina State Board of Medical Examiners has been doing its work for the past twenty years.—*Virginia Medical Monthly*.

A CASE OF RE-INJECTION OF BLOOD DURING AMPUTATION AT THE HIP-JOINT, WITH RAPID RECOVERY.—(By A. G. Miller, M.D., Edinburgh). In a case of strumous disease affecting both hips, the left knee and the left elbow, with a large abscess connected with the left hip, the patient being in very feeble condition, amputation at the latter joint became necessary. The limb having been exsanguinated to the middle of the thigh, and a powerful elastic tourniquet applied at the groin, a rapid circular cut was made right down to the bone in the upper part of the thigh, the femur sawn through, the femoral artery and some smaller vessels tied, and the tourniquet removed; some hæmorrhage still occurring from a few small vessels, they were also ligatured. All the blood which escaped, both from the femoral artery and the smaller vessels, amounting to eleven ounces, was caught in a vessel containing a solution of phosphate of soda and re-injected into the deep femoral

vein. By an incision on the outer side of the thigh the head of the femur was then dissected out. The wound was dressed antiseptically. The patient suffered no shock whatever, nor depression of temperature after the operation. For the first few days he was flushed and had a fuller pulse than before the operation, but he had no rise of temperature. The weakness and the anæmia of the patient, together with the increased vascularity of the parts due to the disease, rendered it very likely that he would not have survived the operation had not the greater part of the blood lost been re-injected—the fact being that from the exsanguification of the leg, together with the reinfusion, there was probably an ultimate gain of blood after the operation.—*Edinburgh Medical Journal—Annals of Surgery.*

SCIENTIFIC ADVANCE IN THE TREATMENT OF TUMORS OF THE BRAIN.—Experimental research is constantly adding to the resources of the curative art, and is aiding to achieve new triumphs over diseases hitherto beyond reach. A correspondent writes: "In a paper read before the Royal Society on June 10th, Dr. C. E. Beevor and Prof. Victor Horsley, F.R.S., gave the result of an experimental investigation of the functions of that area of the cortex of the brain, which Dr. Ferrier showed to be the centre of the movements of the upper limb. They found that, when the upper part of this area was stimulated, the movements which followed commenced in the shoulder; that, when the lowest part was stimulated, the movements commenced in the thumb; and that, when the intermediate part was stimulated, the movements commenced in the wrist. These phenomena will be seen to be in agreement with the observations on the priority and the "march" of movements made by Dr. Hughlings Jackson in the particular type of epilepsy to which his name is often applied. It was not long before an occasion arose for applying the knowledge gained by these experiments to the cure of disease. A man was admitted into the National Epileptic Hospital (to which both Dr. Beevor and Mr. Horsley are attached), suffering from Jacksonian epilepsy, by which he had been incapacitated for two years. The fits began in the thumb; and Dr. Hughlings Jackson, under whose care the patient was, believed that the case was one to which the new knowledge with regard to the situation of the centre for the thumb might be applied, although the symp-

toms diagnostic of tumor were very vague. Owing to the great difference in complexity between the brain of the monkey and of man, there was, when the investigations of the functions of the cortex of the brain were first undertaken, considerable difficulty in applying the results obtained. At the present time, however, these difficulties have been almost completely overcome, and the relation of the cranium to the subjacent convolutions has been thoroughly worked out. Mr. Horsley, therefore, although the patient presented no external signs of disease, and the skull had not been injured in any way, was yet able, by measurement, to apply his trephine over the cortical area which contained the thumb-centre. On removing the piece of bone cut out by the trephine on its first application, a tumor was detected immediately beneath. The hole made by the trephine was enlarged, and the tumor, together with the rest of the thumb-centre, was freely excised. As in the case to which reference was made a fortnight ago, Mr. Horsley treated the wound on precisely the same principles as those which he had found to be successful with monkeys after experimental operations, and the result has left nothing to be desired. The operation in this second case was performed on June 21st, and the wound healed by immediate union, so that on June 26th there was only a very small granulated surface, where drainage had been maintained. We find, on inquiry, that a week after the operation, the man was quite well, had had no fits, and was recovering power in the paralyzed limb. The other patient, upon whom Mr. Horsley operated three weeks ago, is also in excellent health, and has had no fits since the operation; it will be remembered that this man was suffering from traumatic epilepsy of a very severe type, and that the operation consisted in the excision of the scar in the brain. The second case, however, which we now record, is distinctly more remarkable, inasmuch as there was no wound or other external sign to guide the operator, who had to depend entirely on the knowledge of the anatomy and physiology of the brain gained by experiment, combined with the pathological generalization established by Dr. Hughlings Jackson. It is not too much to say that the successful termination of these two operations proves that a new departure in the treatment of certain diseases of the brain has in truth commenced. In operating on monkeys, it has been found that the wound in the brain and membranes and scalp, made in the operation of trephining, will, as a rule, heal in

four or five days ; and this case of Mr. Horsley's shows that the same holds good with man when the line of treatment is the same. These two cases will form an interesting subject for discussion at the meeting of the British Medical Association at Brighton. The subject of cerebral surgery will be introduced by Mr. Horsley, who will explain his method of treating the wounds ; and among the large mass of illustrative material which he is bringing together to illustrate his paper, will be photographs of these patients before and seven days after operation, showing the condition of the wound at the latter date. The discussion is certain to be of the highest interest, for both Dr. Hughlings Jackson and Dr. Ferrier have expressed their intention of taking part in it. It would be rash to speak of either of these two cases at present as cured ; it is possible that the traumatic epilepsy may recur, and that the patient from whose brain a tumor has been removed may have another elsewhere within the cranium ; in both cases, however, a hopeful attitude is fully justified ; the probabilities are distinctly in favor of the anticipation that the cortical tumor was solitary, and will not recur. The point in treatment, and a very important point it is, which has been established is, that the operation of excising a tumor from the cortex of the brain is unattended by danger to life when the wound is treated on the basis of the knowledge acquired by recent experimental research on the principles which have been found to be successful in monkeys.—*British Medical Journal*.

OBITUARY.

PLEASANT P. PEACE, M.D.

Dr. Pleasant P. Peace died at his residence, in Wake county, on the 25th of June. He was born in Granville county, educated at William and Mary College, graduating there in 1842. Three years later he received his degree of M.D., and began his professional life in his native county. During the war he first served as surgeon to Green's battalion, but desirous of being actively engaged among the fighting men, he entered the 47th regiment as a lieutenant, under Capt. J. J. Davis, of Franklin county. After the capture of Capt. Davis, at Gettysburg, Dr. Peace commanded the company until June 2d, 1864, when he was dangerously wounded, and was permanently invalided.

He was a consistent member of the Presbyterian Church, and his life was an illustration of his religious profession.

SAMUEL B. FLOWERS, M.D.

Dr. Samuel B. Flowers was born the 31st of October, 1835, and died the 6th of June, 1886, aged 50 years 7 months and 6 days. He obtained his medical education at the University of Philadelphia, from which institution he received his diploma in the spring of 1857.

The first three years of his medical life were spent in Camden, Ark. In his adopted State he had in this short period established himself well, and everything seemed bright and prosperous to him.

At the beginning of the war he laid aside all personal aggrandizements and home pleasures and joined the medical corps of the Confederate Army. In this position he rendered efficient service, remaining there till the last. At the close of the war he returned to his native State and to the home of his boyhood, and began anew the practice of his profession. He soon established himself, and gained the full confidence of the people.

About twelve years ago he moved to this village, which is only a few miles from his old home, and here he followed closely and continuously his avocation till his death.

He was a physician of rare attainments, endowed with a fine mind, quick perception, good memory and sound judgment. He was a close student, keeping well abreast with the numerous changes and rapid advancements made in our profession. With these embodiments of success, need I add that he was a very successful physician?

His energy was unbounded, ready at all times, and willing to go to administer to the sick and suffering. His will-power was indomitable and his hope unmeasurable. With these strong exponents of character, he was the surprise and wonder of his daily visitors during his last illness.

He suggested and insisted on the course of his treatment all the way through. His hope of getting well kept him buoyant and alive for days and days. After the hopes of his many friends and visiting medical brethren had withered and gone, his hope still kept up, and he would speak often of what he intended doing as soon as he got well.

In his death our community has sustained an incredible loss, his patients their best friend and adviser, our profession one of her safest, soundest and best physicians, and his family more than language can express.

He leaves a widow and nine children, with a host of friends, patrons and medical brethren to mourn his untimely death.

I. W. FAISON, M.D.

Mt. Olive, N. C., June 30, 1886.

BOOKS AND PAMPHLETS RECEIVED.

Ohio State Sanitary Association. Third Annual Meeting.

Quiz Compend of Pharmacy. F. E. Stewart, M.D., Ph.D.

Memoir of Austin Flint, M.D., LL.D. By A. Jacobi, M.D.

Some Observations on Health Resorts. By E. O. Otis, M.D.

Report of the North Carolina State Horticultural Society, 1885.

Ethics of Female Sterility. By A. Reeves Jackson, A.M., M.D.

The Pneumatic Cabinet and Pneumatic Differentiation. By F. Donaldson, Jr., B.A., M.D.

The Sanitary Conditions and Necessities of School-Houses and School Life. By James F. Hibberd, M.D.

Cremation of Human Bodies not a Necessary Sanitary Measure. By Frank H. Hamilton, A.M., M.D., LL.D.

Personal Observations of the Value of Cocaine in Nose and Throat Surgery. By Frank Donaldson, M.D.

Clinical Lectures on Orthopædic Surgery. Delivered at the Philadelphia Hospital by A. Sydney Roberts, M.D.

A Contribution to the Pathology of Hemianopsia of Central Origin (Cortex-Hemianopsia). By E. C. Seguin, M.D.

The President's Address. Delivered before the American Gynecological Society, at Washington, D. C., September 23, 1885. W. T. Howard, M.D.

The Student's Manual of Venereal Diseases. Being a Concise Description of those Affections and their Treatment. Berkeley Hill, M.D., and Arthur Cooper, M.D.

Boston Society of Civil Engineers. Papers Read at a Special Meeting held March 3, 1886. Comparative Size of Metric and Old Units with Reference to Convenience. By Fred. Brooks, Member of the Society. Report of Committee on Weights and Measures.

Two Obstetrical Heresies. By S. F. Startley, M.D.

A Lecture on the Code of Medical Ethics. By G. E. Frothingham, M.D.

Cataract. Report of Fifty-two Cases, with Remarks. By Jos. A. White, M.D.

A Few Suggestions for the Preparation of Milk for Infants. By John M. Keating, M. D.

Report of a Case of Successful Transfusion in Typhoid Fever. By Wm. S. Whitwell, A.M., M.D.


Hydrophobia. M. Pasteur and His Methods. A Critical Analysis. By Thomas M. Dolan, M.D., F.R.C.S.

Some Points of Interest Connected with the Wanklyn Method of Sanitary Water Analysis, Particularly on the Detection of Recent Sewage. By Charles Smart, Major and Surgeon U. S. Army.

READING NOTICES.

HAVING made arrangements with the *Therapeutic Gazette* and *American Medical Digest* by which we can offer those valuable journals in combination with the NORTH CAROLINA MEDICAL JOURNAL at reduced rates, we make the following offer to new subscribers and to those who wish to renew their subscriptions :

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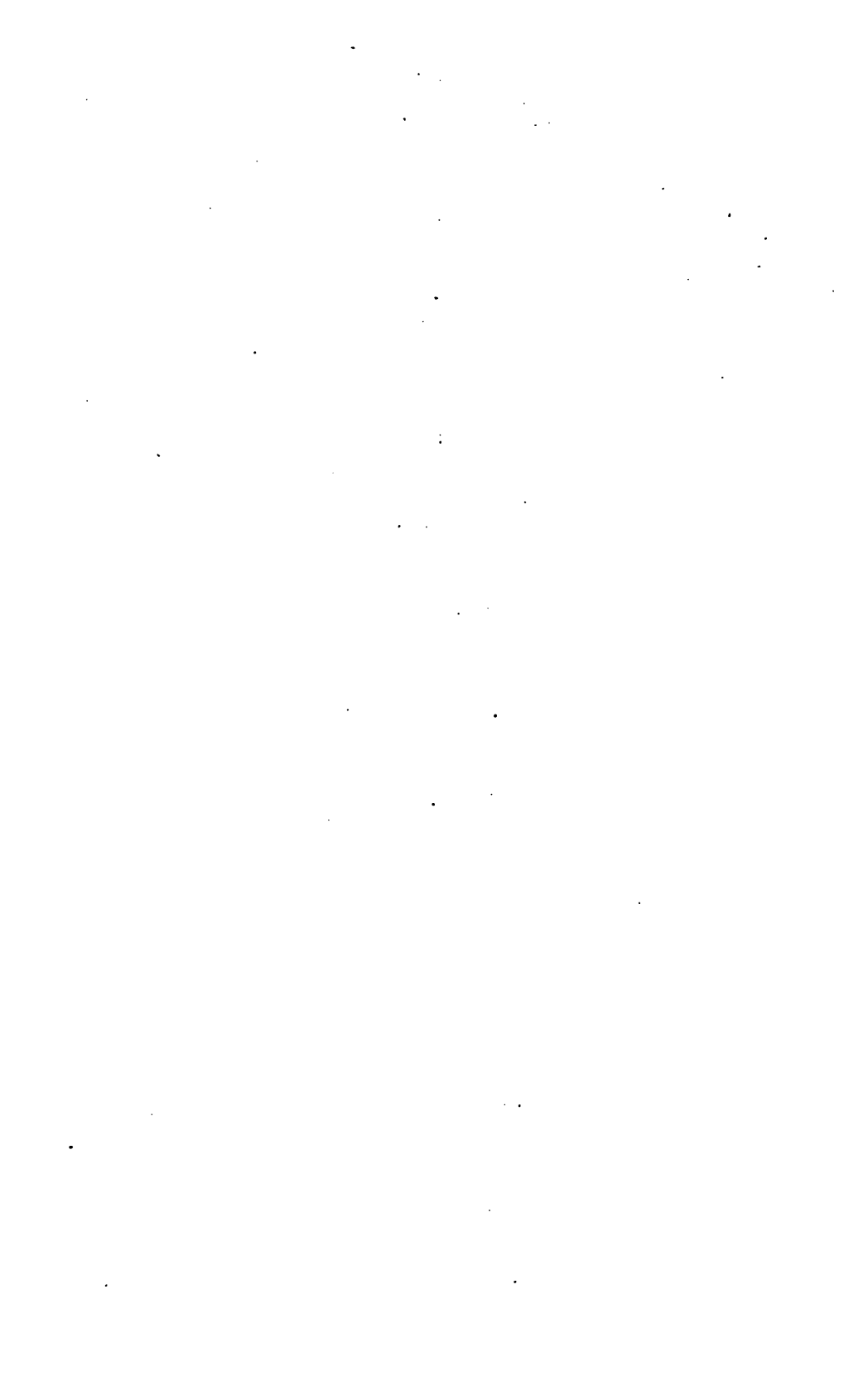
THE UNIVERSITY.—We are glad to see the University offering free instruction to its graduates and those of the other colleges. Students who desire special training in Latin or Greek or Engineer-

ing or Chemistry or any study, will find it at Chapel Hill. Professional teachers are offered the advantages of a special course under Prof. Henry, while they may at the same time pursue any other studies. Considering the size of the Faculty, the equipment of the laboratories, the method of imparting knowledge, the number and character of the students, and the cost, we can unhesitatingly recommend our University as not excelled by any in the United States for our boys. For announcement, see our advertising columns.

THE MALTINE MANUFACTURING COMPANY has just issued a new form of its excellent preparation of Malt, which, being less viscid than formerly, is more agreeable to the taste. They are also making compounds of several different medicines with Maltine, among which we especially note Maltine, with Cascara Sagrada. The well known value of Cascara as a gentle and painless purgative, and the emollient properties of Maltum, make the compound one promising much good.

MAURICE HACHE, M.D., 8 Rue de Touruon, Paris, May 18, 1886, says: "I have tried BROMIDIA in two cases, one patient suffering from a slight febrile affection, the other a victim of acute insomnia; in the latter case various preparations of Opium had proved useless, and the administration of chloral was followed by lassitude and congestion in the head.

BROMIDIA produced sound sleep in both of these cases, unaccompanied by any unpleasantness on awaking. In my opinion this preparation is destined to render good service, and I intend prescribing it whenever the opportunity presents itself.



NORTH CAROLINA MEDICAL JOURNAL.

THOMAS F. WOOD, M. D.,
GEO. GILLETT THOMAS, M. D., } Editors.

Number 2. Wilmington, August, 1886. Vol. 18.

ORIGINAL COMMUNICATIONS.

MULTIPLE FŒTATION—TRIPLETS.

By W. L. CRUMP, South River, N. C.

(Read before the North Carolina Medical Society, at New Bern,
May 21, 1886.)

In the records of 37,441 cases of accouchement that occurred at La Maternité, in Paris, says Cazeaux, "there were only 5 cases of triplets"—one case in about every 7,490 labors. Having been so fortunate as to attend one, and observing some interesting features connected with it, other than its extreme rarity, I am encouraged to submit the following report :

Case.—I was called, about 3 P. M., of the 22d February, 1886, to attend Mrs. E., whom the messenger informed me was in labor. As I was in the act of starting to a similar case, it was impossible for me to see her, so I referred the messenger to another physician. I heard no more of the case until the 26th, when her husband came for me to see her, saying that his wife had not been confined on the 22d, and was very uneasy concerning herself. I called and gathered

the following history : That this was her second pregnancy, with an interval of four years and five months since the first, when she gave birth to twins. Had been married five years ; aged 38 years. On the return of messenger (who had been sent for me on the 22d) they had procured the services of another physician, who arrived about dark of the evening of same date. After an examination, he informed her that she was in labor, but as it would be sometime before labor would come off, he would give her a large dose of morphia, and thereby enable her to procure a good night's rest. She took the drug and slept well until the following morning, when, her pains being very slight, the physician informed her that the labor had been suspended, and directed her to send for me again whenever it was reinstated. After gathering the foregoing history, I proceeded to an examination, and was immediately struck by her enormous size and the uniformly smooth surface of the abdomen presented to the touch—no inequalities whatever being appreciable. It seemed to me that the distension of the abdominal walls could not have been a degree more without a rupture ensuing. She was, at this time, complaining of pains throughout the abdominal region, that were evidently due to the extreme muscular tension. She informed me, further, that she had felt no foetal movements since she had awaked from the effect of the morphia. Requiring her to remain in bed and to maintain a recumbent posture, with knees drawn up to relieve, as much as possible, the muscular tension, I prescribed a placebo, and directed her to send for me again when necessary. On the following Sunday morning, 28th February, I was summoned to her in haste. Just as I stepped into the room the membranes ruptured spontaneously, and at 10:30 o'clock (fifteen minutes probably after rupture of membranes) the first child was born—dead. External examination, now, showed but very little diminution in size of abdomen, and on passing my finger into the vagina, I could barely reach the membranes of the second child intact and high up in utero. In a short time the uterine contractions began anew, and, after waiting about twenty-five minutes, the second sac was easily ruptured by the finger, and the second child was born—dead. I again placed my hand on the abdomen and found it still too large. I thought, however, that the want of subsidence must be due to the placenta, which were probably unusually large. In five or ten minutes, however, the

uterine contractions began the third time, with markedly less vigor, though, than after birth of first child, and, on passing my finger as far as possible into the uterus, I was astonished to feel the flaccid membranes of a third child presenting themselves. The uterine contractions continuing feeble, and finding it impossible to rupture the membranes with the finger, I inserted a sharp-pointed probe into the sac, and let off the water. At 11:30 o'clock the third child was born—dead. In a half hour the placenta—one for each child, with separate and distinct membranes—were delivered without any difficulty, thus completing the labor.

RECAPITULATION.

	Age.	Weight.	Confinements 2.	Interval bet. 1st and 2nd, Confinements.
Mother's.	38 yrs.	120 lbs.	1st Twins.	4 years and 5 months.
Father's.	26 yrs.	130 lbs.	2nd Triplets.	

SALIENT POINTS IN SECOND LABOR

	Presental.	Sex.	Weight.	Hour.	Rupture of Memb's.	Condition of Children.
1st Child.	Breech.	Boy.	5 lbs. †	10.30.	Spontaneous.	Dead.
2nd Child.	Head.	Boy.	5 lbs.	11.00.	Finger.	Dead.
3rd Child.	Breech.	Girl.	4 lbs. †	11.30.	Probe.	Dead.

Remarks.—There are several points of interest connected with this case worthy of more than a mere passing notice.

I. THE PLACENTAL DEVELOPMENT.

In this case we find three separate and distinct placenta—one for each child—and each having, independent of the others, a complete set of membranes. One placenta, with its membranes, is entirely separate and apart from the others, whilst the remaining two seem, at the first glance, to be one common after-birth for two of the children. On close examination, however, a fibrous union between the two can be traced, and it is very evident that they have no other connection with each other than this, and that they are in reality separate and distinct. The chorions of these two placenta are merely in intimate apposition, and can be easily separated without tearing or other injury to their individual entirety. Now, this individuality of the

placentæ and membranes presents an anatomical anomaly of such unusual occurrence that I am unable to find a similar case recorded.

Cazaux reports two cases only of a like nature. One, that of Dodd, reports the placenta consolidated into one, with a common chorion for two of the children, while the third child had a separate one; in the other, recorded by Davis, the three fœtuses had a common decidua, with a common chorion for two of the children and a special one for the third child.

II. OVULATION.

We have here, as is shown by the disposition of the membranes, a rare specimen of multiple ovulation. M. Guillemot, who has particularly studied the subject of multiple fetation, formulates four distinct varieties of the disposition of the membranes in such cases. The two first varieties, only, are of interest to us in the study of this particular case. He (Guillemot) says—and here he is speaking of twin pregnancies, but the application of the rule to cases of triplets is natural—
 1. Two ovules are fecundated and each embryo is developed and is surrounded by its own proper membranes. 2. The ovule has two germs, though each fœtus has but a single envelope, the chorion being a common membrane. The cases recorded by Davis and Dodd were a combination, as respects their ovulation, of these two varieties carried by nature one step further and made to apply to triplets, thus: in both cases there was a common chorion for two of the children, formed according to Guillemot's second variety from a double ovule, and a special chorion for the third child, formed according to first variety from a single ovule. Now, applying this rule to this particular clinical case, it is evident that there must have been an expulsion of three separate ovules at or near the last catamenial period, and that each ovule developed its own proper membranes, thus laying at the first step of gestation an anomalous foundation for this most anomalous case. Further, it is fair to conclude that both ovaries must have been engaged in the process of ovulation at the time, for it is highly improbable that one ovary could mature and expel so many eggs at one time.

III.

Having briefly reviewed the salient points in this case which characterize it as an anomaly, we come to the consideration of the most practical and important feature, which is embodied in the speculation

as to the probable cause of the death of these fetuses. It will be remembered that there were foetal movements perceptible to the mother just prior to the administration of the morphia (given by the physician, who supposed her to be in labor on the 22d of February), and from that time to the delivery of the dead children, there had been no movements perceptible. I wish to relate here a personal clinical experience. I was once called to a woman in labor, and, finding it in the initial stage and progressing slowly, I pursued the common practice of administering an ordinary dose of morphia by mouth. The drug was given about 8 or 9 o'clock P. M., and just before the administration of the same foetal movements were plainly perceptible to my own sense of touch. The mother procured several hour's rest, and was delivered, about 7 or 8 o'clock of the following morning, of *twins*—dead.

I could find no rational cause for their death at the time—the possibility of the morphia being a factor not occurring to my mind then, nor until I met with similar results after its administration in this case of triplets. No more than “the coming of one swallow makes a summer” does the report of these two cases establish a new clinical truth or controvert an old, accepted theory, yet they surely serve as significant data for rational speculation, and suggest the practical query: In suspected multiple foetation is the administration of morphia to the parturient woman good practice or safe? There are several facts in support of the negative of this question worth consideration.

1. *Children of Multiple Foetation are of Diminished Vitality.*—The natural law of reproduction is the generation and development of *one* foetus, and if the generative supply intended by nature, under this law, for the development of *one* foetus is distributed amongst *three* children, it necessarily follows that the individual members of the three must be in a state of diminished vitality, and by parity of reasoning this is applicable, in a less degree only, to twins.

Vital statistics in regard to triplets well attest the truth of this proposition. I have been unable to find a single authentic case of triplets in which all of the children lived, and but one in which any of the children lived more than a few weeks. They almost always die in a few hours after birth from an apparent want of vital resistance.

2. *Children in Utero are Susceptible to the Action of Poisonous*

Drugs.—Dalton says in his "Human Physiology," page 761: "Even medicinal substances, taken by the mother, may transude through the placental vessels, and thus exert a specific effect upon the foetal organization."

Cazaux records cases in which poisonous drugs, taken by the mother, were found by analysis in the body of the foetus. It is unnecessary to add quotations of a similar nature from other authors to sustain the truth of this second proposition. Its practical application to this case is easily made thus: The morphia was taken into the blood of the mother in a state of solution, and a portion of it was carried into the placenta, and transuded thence through the thin walls of the maternal vessels and umbilical radicles into the foetal circulation, by which means it entered the bodies of the three foetuses. Now, this poison must of necessity have remained in the bodies of the children a sufficient length of time to have endangered life, for it could only have been eliminated from the system, in the main, by means of, and through, the return of circulation, and the very force, the foetal heart, which insures this means of elimination is especially susceptible to the action of this particular poison. According to Bartholow the effect of a lethal dose of opium on the heart is "to produce a slow and feeble action or a rapid and feeble action, and finally paralysis of the organ." In consequence of the resistance *a fronte*, by reason of the number and curvatures of the umbilical arteries and the diminished action and loss of power of the foetal heart *a tergo*, a venous stasis must result, thereby furnishing conditions most favorable to the deleterious action of the poison on the foetal structures—notably the heart, resulting in paralysis of that organ and the death of the foetuses. Coupled with these conditions we find another in the pre-existing want of vitality in the children themselves, which, alone, placed them in a position to offer but feeble resistance to a poison so inimical to early life. Bartholow says: "Especially is the susceptibility to its (opium) action great in early life." Now, if these deductions are true, then has the negative been sustained, and we can embody a practical truth in the following formula: In suspected or diagnosed multiple foetation, the administration of a salt of morphia to the parturient woman is fraught with extreme danger to the children.

THE DRY TREATMENT OF CORPOREAL ENDOMETRITIS.

By S. D. BOOTH, Oxford, N. C.

(Read before the North Carolina Medical Society, at New Bern,
May 21, 1886.)

For many years I have thought that a great improvement might be made in the treatment of inflammatory affections attacking the lining membrane of the unimpregnated and non-puerperal womb, could we safely and easily apply our curative remedies in a dry and powdered form.

The advantages to be gained by such means of applying remedial agents are numerous and obvious. The difficulty in applying solutions or any medicines in a liquid form, freely and uniformly, has been met and recognized by every gynecologist.

The uterine syringe, in its varied forms and multitudinous devices, such as the reversed current, grooved and fluted tubes, double canula formations, and tubes within tubes, has been almost entirely discarded and laid aside as not only unsatisfactory in its operation, but a dangerous instrument, except in cases of abortion, when the os and cervical canal are wide open, giving easy and quick exit to the injected fluid. The most satisfactory way of making these applications has been by means of the flexible metal applicator, well armed with absorbent cotton, properly applied to its distal end and dipped into, and well saturated with the liquid, which is designed for the treatment of the case in hand.

The applicator thus armed may generally without trouble be carried through the os and cervical canal into the cavity of the body of the womb. The internal os, being, generally in cases of corporeal endometritis, wide open, it offers no more resistance to the passage of a probe or other instrument than does the cervical canal. But when the cotton reaches the cavity of the uterine body the liquid is found to have wiped off, so that the fundus and walls of the organ are very slightly, if at all, touched by the medicine. To obviate this difficulty and remove this drawback to the successful treatment of the disease under consideration, recourse has been had to various means and devices with varying degrees of success. The cervical canal has been enlarged by means of tents made of sponge, laminaria, etc. Still the

operator often finds, to his disappointment and chagrin, after the removal of the tents, although the canal of the cervix and uterine os are capacious, its walls collapse and fall together. So that the cotton, in its passage through the canal, though not entirely deprived of its contained liquid, as in undilated cases, has been rid of the medicine on its exterior, and the corporeal endometrium receives but a scant supply of the liquid so much needed in that especial locality.

The uterine dilator has been used by some very eminent gynecological surgeons to separate the walls of the cervix, while the applicator is being passed. The closed blades of this instrument are pushed into the cervical canal until their points have reached the internal os; then the handles are pressed together until the blades are separated sufficiently to allow the easy passage of the applicator between them. This arrangement is better than that of the tents; but those parts of the uterine walls which are covered by the blades of the dilating instrument are not touched by the medicine, and there is not such an excess of the fluid left on those parts which are accessible, to admit of their supplying the needed remedy to the covered portion after the blades of the dilator have been withdrawn.

By far the best and most thorough means of application is one which I had been pursuing for some years, and afterwards saw recommended by Dr. Mundé in his valuable book on minor gynecological surgery. That author uses a silver or gum-tube one-fourth of an inch, more or less, in diameter, and eight or ten inches in length, by introducing one end into the uterus and then passing a small applicator through it. Simply a male gum catheter cut off at the small end answers very well. I generally carry two or three sizes of catheters cut off ready for use in my instrument-bag. I also carry some small white-oak "applicators," which can be carried entirely through the piece of catheter. After introducing the catheter I wrap absorbent cotton securely around the little white-oak split, and, after soaking it in iodine, phenol, or whatever medicine I wish to use, I carry the split through the catheter up to the fundus of the uterus; then I withdraw the catheter over the split, leaving it with the cotton and medicine in the uterine cavity. After allowing it to remain a few minutes until the contractions of the uterus set up by the presence of the medicine have ceased, I withdraw the split and cotton. In that way the medicine is freely

and fully applied to the inflamed endometric membrane, but still the results are rarely satisfactory. The medicine already in solution is greatly diluted by the uterine secretions, whose flow is augmented by the irritant effect of the medicine, so that, in some instances, unless the medicine is absolutely cauterant in action, it is washed or carried off before any considerable alterative effect can be produced. Should the remedy be one of the metallic salts, especially the nitrate of silver, its chemical constitution will be so changed by contact with salts contained in the secretions, that in many instances it becomes almost totally inert. Under any circumstances, medicines applied in a liquid form to the lining membrane of the uterus rarely ever remain in contact with the diseased tissues a sufficient length of time to produce the amount of effect which we desire, unless the parts are cauterized.

Every gynecologist will admit that many gentle sufferers have been relieved and a large number of ladies with undoubted endometritis have been cured by the ordinary means of applying remedies in a liquid form to the lining membrane of the body of the womb, yet, as an established means of treatment, we must all acknowledge that it has not been satisfactory. Just at this time medical men seem to be waking up to the probable advantages which may be derived from the "*dry treatment*" of uterine troubles.

In the last few months I have seen in the journals various allusions to the subject, but no author, so far as I know, has suggested a way, or given the remotest hint at a possible means of applying dry medicines to the membranes lining the cavity of the body of the womb. Numerous practitioners have thrown or sprinkled medicines in a dry and powdered form into the vagina, and one writer in the *Journal of Therapeutics* speaks very highly of the treatment of all inflammatory affections of the unimpregnated womb by means of dry medicines applied to that organ on cotton left in the vagina. I was surprised at the enthusiasm of the writer, and regret exceedingly that I mislaid the paper containing the articles, because I failed to understand how the inflamed endometrium could be so immensely benefited through the agency of a remedy thus applied, for it is certain that the remedy could touch no part of the lining membrane of the uterus except that part which is contained in the vaginal vault. Still, as I indicated at the

outset, there are great advantages to be derived from the direct application of various medicinal agents to the inflamed endometrium. The strength of the remedy can be better controlled, it will remain in contact with the inflamed surface much longer, its chemical constitution is less subject to be altered because it meets with the uterine secretions more gradually and proportionally in smaller quantities. It also separates the inflamed surfaces, and for a considerable time keeps them from contact with each other, which is no small consideration in the treatment of inflamed serous or mucous surfaces. In this way we can avail ourselves of many valuable agents, which cannot be utilized in any other way because of their slight solubility. For instance, bismuth and the powdered chlorate of potash, as well as various others. Now, the question is how to apply these valuable and useful, as well as innocent and pleasant medicinal agents, to the inside of the walls and to the fundus of the uterus in a dry and powdered form, and at the same time with perfect safety? I began the experiment a few years ago by rubbing together subnitrate of bismuth with the nitrate of silver—12 parts of the former to 1 of the latter, and putting this powder into the end of a catheter previously cut off at the small or front end with an ordinary gelatine capsule filled with the same material and slipped over the end. After carrying the loaded capsule through the os and cervix and up to the fundus, it was an easy job to push the medicine out at the end of the catheter by means of a wooden rod, having a shoulder cut a distance from the end corresponding with the length of the catheter. In this way the medicine and capsule are left in the uterine cavity, and the rod of wood thus guarded and arranged cannot possibly wound the uterus. Some cases did remarkably well by this means of treatment, but if the uterus chanced to be very irritable, considerable harm was done to the sensitive membrane before the capsule had time to dissolve, and occasionally I found that the capsule was so slow in dissolving that the medicine was by no means equally distributed over the uterine cavity, and in some of these cases, the medicine and capsule were forced away very little altered by the action of the uterine secretions. I was trying to invent some better and safer means of applying these powdered medicines to the cavity of the womb, when about a year ago, I noticed in the houses of many of my

patients a very ingeniously constructed arrangement for throwing "*insect powders.*"

By means of this arrangement I noticed that the powders could be thrown, not only into the various corners and crevices of the chamber, but also into the small cracks and crevices about the furniture and bedsteads, following and destroying vermin and small insects in their narrow hiding-places.

It occurred to me, forthwith, that this little apparatus might be utilized in accomplishing the object which I so much coveted and which had, up to this time, foiled my inventive efforts.

This little machine is not unlike a small oil-can in appearance. It is simply a small tin box about the size and shape of those which we have so often seen serving the purpose of holding "*Mason's*" blacking. It has a spout fastened to its edge, and through this spout the powders are forcibly and easily thrown when the top is pressed upon. There is more in the construction of this tin box than we might suppose at first sight. The top is made partly of metal and partly of leather; in the center of the top there is a metal plate about the size of a silver half dollar. To the edge of this piece all around is fastened leather which extends, and is fastened to, the edge of the box. A spiral spring sets on the bottom of this box and extends to the plate in the middle of the leather top. When this box is taken into the hand and the thumb placed upon the metal plate in the top, you only have to press, and the powder in the box is forced out through the spout; remove the pressure and the spiral spring on the inside forces up the top again, and the box receives air through the spout and becomes inflated again. At the bottom of the box there is an aperture for the admission of powders. This aperture is stopped with tin-covered cork when the box is used.

In using this box, I have retained the male catheter as a uterine tube through which the powders are conveyed from the box to the uterus. By this means, there is no trouble in throwing the powders into the uterus, but the spout has to be withdrawn from the catheter at each stroke of the apparatus, otherwise the uterine secretions are drawn into the catheter, and, mixing with the powdered medicine, a thick, doughy plug is formed, which is removed from the catheter with great difficulty, even after it has been withdrawn from the uterus. Could the box receive air in any other way, the spout

would still have to be withdrawn from the catheter at each stroke, otherwise the uterus would speedily become inflated, and air would be forced through the fallopian tubes, carrying with it unhealthy spores, causing innumerable troubles; because the walls of the cervical canal closed around the catheter would offer more resistance to the imprisoned air than would the unobstructed fallopian tubes.

On account of these obstacles and hindrances, I was not satisfied with my discovery, but had to make only one more step to construct an apparatus which would throw an unlimited quantity of powdered medicine into the uterine cavity and cause the accompanying atmospheric air to escape at each stroke of the instrument.

Attached to the new apparatus, at its posterior edges, is a piece of gum-tubing, containing a closely-fitting valve; through this it gets its air, instead of having to receive it through the spout. The top is part leather, with a metal plate in the center, similar to the old one, and the same spring arrangement obtains on the inside. Instead of having the box round, it is conical, with a rounded base. By making the front in the shape of a cone the angles and corners are dispensed with, and the flow of powders from the box to the uterine tube is unobstructed. Attached to the box, at the apex of the cone, and extending from that to the uterine tube, is a piece of gum-tubing $2\frac{1}{2}$ inches long. In this tubing there is a good tight valve, which works in an opposite direction from the valve which admits the air. When the top is pressed down, this valve is thrown open, and the powders pass from the box to the uterine tube, but it closes when the pressure is removed; so that, while the box is being inflated through the agency of the posterior valve, no suction can take place through this front valve, and consequently no moisture can be drawn from the uterus into the tube. The uterine tube is 9 inches long. The main pipe is a little less than $\frac{1}{8}$ of an inch in diameter; then there are two small lateral pipes, one on each side of the larger one, $\frac{1}{16}$ of an inch in diameter. These small lateral pipes begin at the distal end of the other, and extend only half its length. Through these small lateral pipes the air escapes at each stroke of the box, from the middle to the uterine end of the pipe. This triple arrangement gives it a flat appearance, and the entire triple structure is less than $\frac{1}{8}$ of an inch wide, and not $\frac{1}{8}$ of an inch thick, so it can be easily passed through any ordinary cervical canal

when the disease under consideration exists. The uterine pipe is connected to the tubing by means of slip-joint, so that it may be detached from the apparatus each time that it is to be introduced. Then, instead of having to go through the awkward operation of securing the box to the pipe, you have only to slip the smooth, well-fitting end into a socket already prepared for it. I have made my article too long, or I would enumerate a number of troubles, in the treatment of which my "*Endometric Duster*," or uterine dry syringe, might be used with great advantage. I will, however, just allude to the fact that some forms of vaginitis yield to this dusting arrangement more readily and surely than to any other treatment at my command.

There is a form of eruptive vaginitis in which the whole vaginal mucous membrane, including the lower portion of the cervix uteri, is covered with little pimples. This form of trouble is generally attended with a most provoking and ceaseless itching of the vulva, and the ordinary remedies seem to have scarcely any tendency to modify its harassing existence. I have known a single dusting over of the upper part of the vagina with a mixture of one part of nitrate of silver and twelve of bismuth, or bismuth alone, to the internal portion of the labia, to stop the itching and burning; and a second application made in like manner to cure the case entirely. This condition of "*pruritus vaginæ*" is not an uncommon attendant upon endometritis, and no other complication of that disease gave me so much trouble until I adopted the dry treatment; but now I dread it no longer. I have treated a few cases of gonorrhœa with the powder-thrower, and with marked success. In one case I used salicylic acid and morphia. It was quite powerful, but did not excite inflammation, and a marked improvement followed its application. In a small number of cases I have used bismuth, 30 parts, argenti nitras, 1 part, morphia sulphate, 2 parts, and these cases recovered more rapidly than I have known the disease to do under any other treatment; however, care must be taken that air is not thrown into the bladder, for the urine will be decomposed and cystitis set up, as I have seen happen in one case. While I am digressing, I must state that dysentery, in its early stages, might, with great advantage, be treated with this dusting arrangement. Nothing could be more salutary in its effects, it seems to me, than a thick coating of bismuth, containing a small amount of morphia,

sprinkled over the inflamed and irritable mucous membrane of the rectum, as the disease is confined almost exclusively to that locality in its inception.

Before closing, I wish to say that nothing could be more appropriate in the treatment of endometritis, when the parenchyma of the uterus is involved to a degree of "hypertrophic engorgement," than the red iodide of mercury; yet I have not used it in such cases, because I consider it too violent in its action undiluted or modified, and I can think of no pulverizable agent with which it is not incompatible. In all those cases of corporeal endometritis which are attended by a purulent or muco-purulent flow from the os, as well as the cases which have a hæmorrhagic tendency, iodine or the iodides freely and frequently applied act more speedily in bringing about a favorable result than any other class of remedial agents which I have used in those troubles. But in those cases in which we see a glairy mucus, looking like the white of an uncooked egg, running from the os, and when little tenderness is manifested in passing the uterine sound, nothing has acted so well and with such gratifying results as the chlorate potash, rubbed to a fine powder and sprinkled freely over the membrane lining of the body of the womb.

We not infrequently meet with disappointment; visit our patient until we are ashamed to go any longer, and leave her very little improved by using too much sameness in our treatment. We select a remedy which we consider excellent as an application in cases of chronic endometritis, and treat every case of this form of trouble with it. Some get well speedily, some slowly, and others are very little, if at all, improved. If we would discard this habit of routine practice into which almost all practitioners are liable to fall, and select our remedies with an eye single to the character of the case in hand, we would be much better satisfied with the results of our practice.

If the treatment of "corporeal endometritis" by means of dry and powdered medicine applied locally to the lining membrane of the body of the womb, proves to be as efficacious, as I have reasons to hope that it will, through the agency of the little apparatus which I have presented, the disease in question will no longer be the "scare-crow" it has been to many physicians; and a large class of cases which we have been satisfied to relieve and comfort a little in the past, may, in the future, be altogether relieved and cured.

REPORT OF THE CHAIRMAN OF THE SECTION ON MEDICAL JURISPRUDENCE.

By J. D. ROBERTS, M.D., Goldsborough, N. C.

(Read before the North Carolina Medical Society, at New Bern,
May 21, 1886.)

Mr. President and Gentlemen of the North Carolina State Medical Society :

As this is the first report to this Society from the Section of Medical Jurisprudence, I have thought it better to lay before you some general thoughts on the question, together with facts in regard to the relation of the physician to our State laws, rather than give the advances made in this special department during the past year, as it is done with the other sections.

Medical jurisprudence, or its synonymous terms, forensic medicine and legal medicine, is a broad term and covers much ground. It can properly be made to include all and every occasion or circumstance where the doctor, in his professional capacity, comes in contact with the laws of the country. Recourse has been made to the physician for help in the interpretation and solution of phenomena in his special department since the dark ages ; and, as we come down through the course of time, we find him growing of more and more importance to the courts as civilization advances and chaos is reduced to order, until, within the past century, medical jurisprudence has assumed the position of a science.

Composed of two great professions, it rarely receives the amount of attention its importance merits, from the members of either, and it is for this reason that Dr. McDuffie, in his presidential address last year, urged the necessity of forming this new section in our State Society.

For want of time and space, in a paper of this character, I shall not attempt to cover, even partially, the ground occupied, and shall leave the whole matter of State medicine and public hygiene to the Board of Medical Examiners and State Board of Health, each of which has been doing such excellent work in its special department during the last few years.

Confining myself to forensic medicine in North Carolina, as I propose to do, to a great extent, the subject of malpractice suits, so much dreaded in some sections, can be dismissed with but a remark, as I do not find a single statute or Supreme Court decision bearing on the question. This I consider quite a compliment to the profession, as it shows that there is no need of such a law, or one would have been enacted.

The question of most interest to us as physicians, in relation to the law, is perhaps our prerogatives as witnesses on medical questions, and how such testimony is received. That the medical witness is placed at a disadvantage in the courts, no one acquainted with the facts will deny. He is out of his chosen element—is to testify of matters but little understood by the court and less by the jury, and, though reading and thinking in a technical manner, is expected to testify in a different vernacular. As little as our legal brother may understand what we say, it is always to the interest of one side to distort what is said, and to effect his purpose he will cross-question, badger and try in every way to confuse the witness. Knowing beforehand what it is he wishes to prove by the physician, or what facts he would like to suppress, he takes advantage of his position to shape his questions in such a manner as to gain his purpose, even at the expense of a seeming error on the part of the expert.

There is often a disposition to distrust the professional witness, especially the paid expert. Dr. Henry F. Cambell, in his address as president of the American Medical Association, 1885, relates an incident in the experience of a medical witness where this was exemplified, and where scientific investigation was ridiculed, as follows: "A woman was on trial for the murder of her husband by poisoning with arsenic, and a learned professor of chemistry and pharmacy in a medical college was the expert, who confirmed the other witnesses by finding arsenic in the stomach of the dead man. The defendant's attorney, an able lawyer, asked him a few questions, on cross-examination, all leading to this: 'Had he, as an analytical chemist, ever failed to find arsenic for the courts in suspected cases?' To which the doctor answered that it had so happened that his analysis had always established the fact of arsenic in cases where its existence had been circumstantially made out. In his argument to the jury the medical expert was alluded to as the arsenic-hunter

for his college, and a good one, too, since he always found it—that the credit of his college would suffer if he failed to find it, etc. The woman was not convicted.” An analogous case occurred in this State a few years since, and was related to me by a friend of the legal profession, who was thoroughly conversant with the facts: “A man was on trial for murder by poisoning with strychnia. He was seen to give the deceased, a half-witted creature, a drink into which he had just put a white substance from a bottle. Almost immediately he was attacked with convulsions, and soon died with all the symptoms of strychnia-poisoning. Prof. Redd, at that time by law the expert for analyzing suspected poisons, testified that he had found strychnia in the stomach of the boy, and showed in court the salts of strychnia in a vial, which he testified to having reduced from the contents of the stomach. The jury rendered a verdict of not guilty, and the most intelligent man on the jury told his fellows that, ‘when that chemist said he got that salt out of the dead man’s belly he believed he swore to a lie.’”

We here see how the results of scientific investigations are treated in our courts. I regret to say that the treatment received by the physician on the witness-stand is often caused, either by himself or his professional brother. If the doctor shows himself a partizan, if he uses his professional knowledge and position for selfish ends, or if he testifies simply because he was paid to give evidence that way, he cannot expect to command the respect due an honorable profession. The members of our profession, too, so often show such culpable ignorance on the stand! The mistakes, the ignorance, the fanaticism, the bombast, etc., of one of the profession reflects, to a certain extent, on the whole. It is the duty of every physician going upon the stand to so prepare himself, and show such perfect knowledge of the subject under consideration as to command the respect of all parties. Much often hangs upon the expert testimony. The life of a fellow-being is in jeopardy, the orphan’s inheritance is hazarded, the innocent are to be shielded from the oppressor, the guilty are to be punished for crimes, or the freedom of the party is involved. To labor against the popular prejudices of the day, to combat the errors and stem the tide of fanaticism, or to assail perverted opinion, is no easy task; but when duty calls and truth demands it, when our labors and investigations as scientists show us where the right and justice lie, there is no neutral ground

for us, nor should we hesitate at the clamors of those around us, but as true physicians hold the scales of scientific inquiry with an even hand, and show our labors to be impartial, let it strike where it will. By a straight-forward, honest course of this kind, we can do much to remove the blame that is now attached to experts.

One of the principal reasons of the distrust shown experts is that the legal man has not kept pace with his medical brother in the advances made in knowledge. Law is a science of dry facts, founded on precedent, and does not claim to be progressive. A question presents itself here as to how much responsibility rests on the courts for much of the poor medical testimony given. Under our laws any man writing himself M.D. after his name is entitled to the appellation of *expert* on any medical question, subject only to the discretion of the presiding judge, who is poorly qualified to pass on a question of which he knows almost nothing himself. Though the matter under consideration may be connected with some specialty, in the knowledge of which he is very deficient, he is called, and in many cases even forced, to testify.

Dr. Thomas J. Turner, Medical Director U. S. N., recently read a paper on medical evidence before the American Academy of Medicine in New York City, from a resumé of which I make the following extracts:

"The boundary line where ordinary testimony ends and expert testimony begins, is not always well defined. * * * "As regard opinions on medical questions, anyone at present may be permitted to testify, the question as to the special amount of knowledge being left to the jury to determine. It follows from this theory that there is no evidence which varies so immensely as so-called expert evidence. It has been decided that a medical opinion may be received as evidence, if it is based upon study without practice, or upon practice without study, and it has been ruled that it is not absolutely necessary that one should have studied or practiced medicine. * * * The test of the admissibility of opinion-evidence (which term Dr. T. prefers to expert testimony) seemed to the writer to be this: Has the expert witness any peculiar knowledge or experience upon the subject matter under inquiry of value to the court in determining the truth of the matters at issue? The degree of credence given to opinion-evidence should be founded upon the professional skill, the quickness of perception, the powers of discernment, the aptitude, the acquirements and

the education, as well as the experience and observation of the expert in the matters upon which his special expert knowledge arises."

Consider how many departments of the science of medicine are tasked for the purpose of elucidating questions before the courts. The chemist, with his crucible, reagents, tests, microscope, etc., the anatomist, the pathologist, surgeon, obstetrician, each department itself a specialty requiring all a man's time and talents for years to master—all these and many others have been and will be again needed to furnish knowledge in its special line for the use of the courts in arriving at the truth of matters before them. And yet our courts accept the testimony, and even demand it, of the young physician in any or all of these departments, though the ink on his diploma is hardly dry, or from the physician who has shown no aptitude or paid no particular attention to the specialty on which expert knowledge is desired. Before the courts the ignoramus, with his purchased diploma, the egotist, anxious to show himself or parade his learning, the miscreant, prostituting scientific knowledge by offering it to the highest bidder, and the painstaking, laborious searcher after truth, with his various accomplishments and years of study, are all classed alike as experts. Is it any wonder that the physician's testimony does not receive that credence which is due it?

Let our courts insist on having as experts those who are competent, by education, experience and observation to testify on the subject under inquiry, and better testimony, more reliable in every way, will be obtained, and the odium of the present state of medical testimony will be removed. Dr. H. C. Wood says he has "never personally known a serious divergence of opinion in medical jurisprudence which did not grow out of the ignorance or incompetency of one of the two sets of experts.

By insisting on the above rule, the humiliating spectacle of scientific men professing to gain their knowledge from the same course, swearing to different results, as is sometimes now seen in our courts, will be avoided.

An examination of the Supreme Court decisions of our State on the subject will show the principles governing expert testimony, some few of the more prominent ones of which I propose to discuss. Throughout the decisions we find the scientific attainments of the physician recognized, and while these decisions have not kept pace in all respects with the rapid strides made in medical progress, they show an appreciation of our labors far in advance of decisions in other States and countries.

As regards the *fees* of experts, Section 3,756 of the Code, last clause, reads as follows: "That experts, when compelled to attend and testify, shall be allowed such compensation and mileage as the court may, in its discretion, order." There is one Supreme Court decision on this question in which it is held that "one summoned as an expert in a criminal action is entitled to an extra compensation under the act of 1870-'71, chapter 139, section 133." (Code as above.) The fees being often quite a *desideratum*, especially when put to much expense in attending court. most writers on jurisprudence advise that this matter be arranged before going on the stand. So far as my experience goes the judges of this State are not parsimonious in allowing fees.

The physician's attainments are recognized in diseases other than the human family, one decision holding that his testimony is admissible in diseases of animals, "when he swears that he is enabled to form an opinion from his reading, observation, etc., of the disease in question, though he has not made diseases of stock a special study." How far the analogy between diseases of man and the lower animals extends, or how great the similarity, I will not stop to discuss. Under the above quoted decision it is left with the witness as to his willingness to swear to the diagnosis, and of his competency and the degree of credibility to be given his testimony, under any circumstances, is a question for the jury. In *State vs. Clark*, Chief Justice Ruffin rendering the decision, says that "the effect of the evidence is, of course, to be decided by the jury." In the same decision the following language is used in regard to expert testimony: "Authorities need not be adduced to show that it is an established rule in the law of evidence that, in matters of art and science, the opinions of experts are evidence touching questions in that particular art or science. The rule is founded in necessity, because persons of ordinary avocations, including jurors and judges, are not generally capable of judging correctly upon many questions which must be determined in order to guide the decision of a legal controversy, and which depend on scientific knowledge or skill in art. * * * At all events, when professors of the science swear they can thus distinguish, it would be taking too much on themselves for persons who, like judges, are not adepts, to say the witness cannot thus distinguish, and on that ground refuse to hear his opinion at all. By such a course the judge would undertake, of his own sufficiency, to determine how far a particular science not possessed

by him can carry human knowledge, and to determine it in opposition to professors of that science. That course would subvert the principle on which the rule of evidence is founded, and exclude the evidence in all cases, since in truth its utility depends on having the aid of men of science at that point at which it is necessary to supply the deficiency in the knowledge of those who are not experts."

Before pursuing the subject further, it might be well to define what the law means by an expert, and for this purpose I copy from Chief Justice Smith in *Flynt vs. Bodenhamer*: "An expert is defined by Worcester, following Burrill, as 'a person having skill, experience or peculiar knowledge on certain subjects or in certain professions'; and by Bouvier as 'one instructed by experience.' The court must decide whether the witness has had the necessary experience to enable him to testify as an expert. But the value of his opinion when, admissible, must be determined by the jury alone, and depends upon the opportunities he has had for acquiring skill and knowledge, and the use he has made of those opportunities. * * * But the opinion of a well instructed and experienced medical man upon a matter within the scope of his profession and based on personal knowledge, is, and ought to be, carefully considered and weighed by the jury in rendering their verdict."

In the syllabus of this case it is held that a physician of thirty years practice is an expert. The first impression received here is that this is true. Certainly thirty years study and observation of any subject should qualify a man to speak with authority on matters connected with such subject. Yet the principal element or factor in forming the expert is lost sight of. Thirty years in the practice of medicine does not, and will not of itself, make an expert in insanity trials. From the very nature of the case it is possible to reduce his qualifications to a term of years. His opportunities for observation, aptitude for learning, powers of discernment, etc., must all be considered in summing up what it takes to make an expert.

Hearsay evidence is not admissible under any circumstances, and opinions based on the truthfulness of another witness' testimony is not allowed as expert evidence. The opinions must be founded either upon facts within the personal knowledge or observation of the report, or upon the supposition or hypothesis that the jury will accept the testimony of witnesses as to facts as true.

It is this principle of law that requires the use of hypothetical

questions. As much as this form of examination is abused, and as many objections as there are to it, it must still be used for the want of something better. Chief Justice Smith, commenting on expert evidence, says: "The opinion of those who are skilled in any department of art or science resting upon undisputed facts and within the scope of their special calling, are not only competent to be heard by the jury, but often greatly assist in the formation of a correct judgment upon matters they are called on to investigate. The superior knowledge of the expert is frequently required in the conduct of judicial examination of subjects beyond the reach of common observation. But this evidence has its restrictions, and must never be allowed to invade the rightful and exclusive province of the jury in drawing their own conclusions from the testimony, of the credibility of which they alone must judge. It is their duty to hear and pass upon the evidence, and the expert's opinion is admitted only to aid in performing that duty." In this connection the rule for the examination of experts as to the proper form is laid down, and is hypothetical, before alluded to, the general form of which is as follows: If the jury find certain facts deposed to by witnesses to be true, what is the expert's opinion of those facts? Many decisions sustaining this form of examination from other States are cited and approved.

In the department of psychology the law is farther behind medicine than in perhaps any other specialty of the profession. It has long been considered a difficult, if not almost impossible, matter to harmonize the two professions on the subject of insanity. Ordinarily the opinion of the physician on subjects connected with his profession is accepted by the courts, but on the subject of insanity acknowledged as one of the most difficult branches of medicine, requiring for its study a high order of intelligence and intellect and long years of close application, anyone is allowed to testify, and the opinion is accepted, though the witness may have never seen a case of insanity.

In insanity trials our courts have certainly made haste slowly. No one deprecates the wrong done to law and order, to society and to our own profession by the "insanity dodge" more than I. That it has worked injury in some States cannot be denied, and I would not advocate the plea to the extent that it is carried by some psychologists.

The great difficulty is how to define insanity. The law attempts to make a cast-iron rule and require every case to fit it. Precedent has more weight than the facts in the case, and if the facts do not tally

with the musty decisions of by-gone days, they are not recognized as carrying any weight. The jurist and the physician look at the matter from two stand-points almost diametrically opposed to each other. Medicine is a progressive science, broad and catholic in its base. The law does not claim to be progressive, but is largely made up of precedents.

On this subject, Mr. Justice Doe, of New Hampshire, says: "When the authorities of the common law began to deal with the subject of insanity, they adopted the prevailing medical theories. * * * Without and conscious or material partition between law and fact, without a plain demarcation between a circumscribed province of the court and an independent province of the jury, the judges gave to juries on questions of insanity the best opinions which the times afforded. In this manner opinions purely medical and pathological in character, relating entirely to questions of fact, and full of error as medical experts now testify, passed into books of law and acquired the force of judicial decisions. Defective medical theories usurped the position of common law principles. The usurpation, when detected, should cease. The manifest imposture of an extinct medical theory, pretending to be legal authority, cannot appeal for support to our reason, or even to our sympathy."

Legal insanity in this State, in a charge by a superior court judge (Green), and endorsed and commended to the other judges by the Supreme Court, is thus defined: "That if the prisoner, at the time he committed the homicide, was in a state to comprehend his relations to other persons, the nature of the act and its criminal character, or, in other words, if he was conscious of doing wrong at the time he committed the homicide, he is responsible. But if, on the contrary, the prisoner was under the visitation of God, and could not distinguish between good and evil, and did not know what he did, he is not guilty of any offence against the law, for guilt arises from the mind and wicked will." Following precedent and the established order of things for generation after generation, because, perhaps, this way was good enough for our great-grandfathers, it must be all right for us, our courts thus cling to the knowledge test for responsibility, after it has been shown, time and again, to be erroneous, by the advances of psychological medicines. This test has been variously modified according to the views of the different judges rendering decisions on the question, since the '*wild*

beast' test of Mr. Justice Tracy, in 1723, while still holding to the cast-iron rule of knowledge as the criterion of responsibility. It was affirmed in 1843 by the English judges, in answer to questions by the House of Lords, in these words: "* * * That before a plea of insanity should be allowed, undoubted evidence ought to be adduced that the accused was of *diseased mind*, and that at the time he committed the act he was not conscious of right or wrong." In 1868 Judge Brewster held that the true test was in the word power; had the accused the power of distinguishing between right and wrong, and the power to adhere to the right and avoid the wrong? Lord Brougham says if he knew what he was doing was contrary to law, that should be the test of his sanity, and Lord Lyndhurst uses these words: "The question was, did he know it was an offence against God and nature?" Chief Justice Tracy restricted the test to the particular act in question, and Parke modified it by the knowledge and character of the deed, and knowledge of doing wrong in so acting, and the whole position is condemned by Justice Ladd.

A short extract from Justice Doe's opinion in the case of *State vs. Pike*, already quoted from, is applicable here: "It is common practice for experts, under the oath of a witness, to inform the jury, in substance, that knoweldge is not the test, and for the judge, not under the oath of a witness, that knowledge is the test. And the situation is still more impressive when the judge is forced, by an impulse of humanity, as he often is, to substantially advise the jury to acquit the accused on the testimony of the experts, in violation of the test asserted by himself. * * * If tests of insanity are matters of fact, the judge should no longer testify without being sworn as a witness and showing himself qualified as an expert."

The jurist is disposed to look at this subject in a stern, matter of fact way, hard in all its bearings, regardless of human infirmities and frailties, while the physician is lenient, recognizing "the ills that flesh is heir to," and merciful to an unfortunate fellow-creature. It is charged against him that it is this feeling of tenderness and forbearance that prompts him to expose the cause of this class before the courts, but the loyal physician, ever faithful to the trust imposed upon him, will always follow the way of truth and justice, and it is justice for the insane, when scientific knowledge or inves-

tigations show him the truth of the insanity, that leads him to advocate his cause. The jurist is confessedly out of his domain in treating of the subject. He may be well suited to cope with the callous, hardened criminal, but what can he be expected to know of the delicate mechanism of the human brain or the influence of disease upon its physiological action? As physicians, we are willing to grant him all the authority or power desired in his own profession, but it is time to resent his interference in matters belonging exclusively to the medical profession. Time was, when the insane was considered as being possessed with a devil, that there was perhaps an excuse for bringing the acute faculties of his mind to bear on a question confessedly difficult to solve, but in the enlightenment of the nineteenth century, when insanity is universally recognized as a *disease*, there is no excuse for his interference, unless he will consent to keep pace with the advances in psychology in his decisions. Another quotation from Judge Doe shows that the fact is recognized by the judges, too: "The legal profession, in profound ignorance of mental disease, has assailed the superintendents of insane asylums, who knew all that was known on the subject, and to whom the world owes an incalculable debt, as visionary theorists and sentimental philosophers, attempting to overturn settled principles of law, when, as in fact, the legal profession was invading the province of medicine and attempting to instill old, exploded theories in the place of facts established in the progress of scientific knowledge. The invading party will escape from a false position, when it withdraws into its own territory, and the administration of justice will avoid discredit when the controversy is thus brought to an end."

This state of affairs is somewhat condoned in one Supreme Court decision in this State, where the judge uses the following language in rendering his decision: "This test (the knowledge of right and wrong) has long been resorted to as a general criterion for deciding upon legal accountability, and, with a restricted application to the act then about to be committed, is approved by the highest authorities. But we do not attempt to lay down any rule of universal application. It seems chimerical to attempt to do so, from the very nature of things, for insanity is a disease, and, as is the case with all other diseases, the fact of its existence is not established by a single symptom, but by a body of symptoms, no particular one of which is present in every case. Imperfect as the rule may be, it covers a great variety of cases, and may aid the tribunals of the country in judging of this most difficult subject."

(To be continued.)

SELECTED PAPERS.

INTRA-CRANIAL HEMORRHAGE.

Dr. H. F. Formad (*Philadelphia Medical Times*) sums up his study of one hundred and fifty-three consecutive cases of intra-cranial hemorrhage, in which autopsies were made, in the following remarks and comments:

Remarks and Comments.—A number of cases of intra-cranial hemorrhage which were encountered have been omitted from the series above detailed; as well as several cases of compound comminuted fracture, in which the skull, membranes and brain were partly pulpified into a mass, and hence the hemorrhage was not satisfactorily made out. I have also excluded chronic cases of cerebral hemorrhage, and those resulting in abscesses or in a fatal lepto-meningitis or cerebritis after the patients had partly recovered from the immediate effects of the hemorrhage. Nor have I incorporated into these records another large class of intra-cranial hemorrhage, viz: that of infantile meningeal hemorrhage. Of these I have seen many in coroner's work. Meningeal hemorrhage is common in infanticides and feticides, and even in still-born children. I can offer no plausible explanation of the frequency of meningeal hemorrhage observed in the still-born, otherwise than that they were presumably due to traumatic injuries from violence or to compression of the cranium during protracted labor or when forceps had been injudiciously applied. I have not met with cerebral hemorrhage in children other than meningeal.

Returning to my classification, I would state that the quantity of the hemorrhage or the size of the clot in any case of intra-cranial hemorrhage appeared, in all the cases observed, to depend upon the duration or the time that elapsed from the moment of injury to death. In cases where death ensued rapidly or instantaneously from shock, as happened in many fatal cases of concussion, or even in fractures of skull followed by immediate death (as by falls from a great height), the bulk of the ante-mortem hemorrhage (the blood-clot) was remarkably small; or clots were occasionally entirely absent, and only a post-mortem oozing of liquid blood could be observed. Where death

had been protracted for several hours, the blood-clot was usually large, weighing up to six or eight ounces, and causing death by compression of brain. In some cases of fracture of skull the hemorrhage is probably delayed for several hours or ensues but very gradually. Some patients are said to have walked around for many hours after the injury, and subsequently, when the blood oozed out in sufficient quantity to compress the brain, they fell, became unconscious, and died in coma. In one case of this nature I found a meningeal clot weighing eight ounces.

In the cases in which the intra-cranial hemorrhage was voluminous and death instantaneous, there was very little scalp-ecchymosis; whereas scalp-hemorrhage was more pronounced where the intra-cranial hemorrhage was small and death delayed.

Further, in no case where there was internal cerebral hemorrhage was there any meningeal hemorrhage when the cerebral vessels were normal; and in no case of traumatic meningeal hemorrhage did I see any coincident ventricular hemorrhage (except small ecchymoses) unless there existed some old lesion of the vessels or substance of the brain. It appears, however, that blood from the lateral ventricles may leak through the foramen of Monroe into the third ventricle, and thence by the aqueduct of Sylvius find its way into the fourth ventricle; but in none of the cases did I observe that a primary hemorrhage into the fourth ventricle ever extended to the lateral ventricles, probably on account of its rapidly fatal character.

A hemorrhage on the outside of an uninjured pia mater cannot reach the interior of the brain or the lateral ventricles.

The source of the hemorrhage is often very difficult to determine. In fracture of the skull the hemorrhage is often diploic; in concussion of the brain the hemorrhage has for its source the vessels of the pia mater; in diseased conditions of the brain or in atheroma of vessels the small feeding branches of the middle cerebral and of the basilar artery bleed most frequently, and the blood, breaking into the lateral ventricles, forms clots in either one or both of the ventricles.

The view expressed by Dr. J. A. Lidell, in his large treatise on apoplexy (New York, 1875, p. 113) that "meningeal hemorrhage not unfrequently occurs spontaneously, as well as in consequence of the operation of violent causes," and that (see page 120) "meningeal

hemorrhage of spontaneous origin is not a rare affection," is not unquestionably erroneous. Yet such "views" are quoted by writers on forensic medicine and presented to juries in murder as *facts*. Ignorant or ill-informed post-mortem examiners can set murderers free, or, on the other hand, they can create unnecessary court-trials.

Conclusions.—I. Hemorrhages exclusively above the pia mater and above the dura mater, i. e., on the outside of the brain, are always due to traumatism or to sunstroke, provided a cerebral source for hemorrhage is excluded, and the cerebral vessels and membranes were not diseased.

II. Hemorrhage in the floor of the fourth ventricle is always traumatic, provided there are no accompanying blood-clots in the lateral ventricles or any other part of the cerebral substance. If, however, the brain-substance is very *anæmic* (in the absence of a massive hemorrhage), then a ventricular ecchymosis may indicate that death ensued from epileptiform convulsions (idiopathic).

III. Hemorrhage exclusively below the pia mater or in any part of the brain-substance or into the ventricles (except the fourth) is always idiopathic, i. e., is due to disease.

IV. There must be a diseased condition of the cerebral vessels or substance in order to exclude violent causes and to ascribe a hemorrhage to disease. There must be traumatism (a fall or violence) in order to account for a hemorrhage in a normal brain.

V. The blood-clot in concussion of the brain is not found at the point of application of violence, but always somewhere about the opposite side of the brain, and always within the cavity of the arachnoid, i. e., between the pia and dura mater.

VI. The blood-clot in fracture of the skull is always found at the point of application of violence, immediately below, and always between, the dura mater and the fractured part of the skull itself. In rapidly fatal cases there may be a second, an intra-dural, clot in some other part of the brain, due to the effects of concussion.

VII. A blood-clot formed within the cranial vault is more favorable to the patient if due to fractured skull than if due to a mere concussion.

VIII. Only clotted blood and infiltration of blood-corpuscles into tissues indicate an ante-mortem hemorrhage; liquid blood is due to post-mortem oozing, and only stains, but does not infiltrate, tissues.

In cases, however, where rapid asphyxiation or certain poisons co-operate with the traumatic injury in causing speedy death, the blood may remain liquid and clots may fail to form.

IX. Severe bruises and cuts of the scalp may be seen in cases of idiopathic apoplexy, where a sudden cerebral hemorrhage causes a person to fall.

X. In some cases it is impossible to decide by medical examination alone as to whether a head-injury and the resulting hemorrhage is due to a fall or to violence.

XI. External marks of violence may be invisible to the unaided eye in some cases of injury of the head or other parts, but are easily detected and also distinguished from post-mortem spots by means of the microscope.

XII. The bulk of an intra-cranial hemorrhage stands usually in inverse proportion to that of the external scalp-hemorrhage; but it stands in direct proportion to the duration or the time that has elapsed from the moment of injury to death.—*Medical Times*.



SOME CAUSES OF THE GRAVER FORMS OF SYPHILIS.

By Professor FOURNIER.

(Translated from the *Journal de Médecine*, February.)



The question is constantly discussed why syphilis is sometimes benign and sometimes severe; but the belief that the character of the disease is decided by the nature and strength of the infective virus is now giving way to the theory that it is decided by the nature of the soil in which the poison is planted. This idea has gained ground since we have found, by a system of confronting the infected persons, that benign syphilis will often cause the malignant forms of the disease, and *vice versa*. Each individual has syphilis in accordance with his constitution, his organic defects and his exterior condition and surroundings. The classical writers sum up everything in those causes which weaken the constitution, and in bad hygiene. But these are not sufficient to account for the

facts; we want a more precise and complete determination of the factors which constitute the gravity of syphilis. They may be classed as follows: Conditions of age; tuberculous scrofula; alcoholism; malaria (which enters largely into the causes of the gravity of syphilis contracted in the colonies); hereditary or acquired predisposition, organic defects, predisposition to hereditary cerebral affections, mental over-pressure; and finally (assuredly one of the most important), an insufficiency of treatment at the commencement of the malady. There are other causes, such as gout, herpes, etc., but we will now confine ourselves to the three important elements: age, tuberculous scrofula and alcoholism.

As to age, syphilis is especially grave at the extremes—in early youth and in old age. We do not now refer to congenital, but to acquired syphilis. Thus vaccinal syphilis in children results almost always in very grave symptoms and is often mortal. Statistics relative to epidemics of this kind demonstrate the fact, and the prognosis in such cases bears no relation to that given in the cases of adults, even when the latter have suffered for six months or a year from acquired syphilis.

It is an ascertained fact that syphilis contracted after the age of fifty becomes more and more serious. Acquired after sixty, syphilis has a very grave prognosis and is characterized by four principal elements: the tendency to phagedæna; to profuse and generalized eruptions; to precocious tertiary symptoms (such as gummata and cerebral lesions), and finally, to a very marked reaction upon the general condition. There are loss of appetite and physical force, with a languor which verges upon prostration, this being soon followed by true cachexia.

Tuberculous scrofula has so pronounced an influence in syphilis that its evil results have remained incontestable. In scrofulous patients the syphilides have a tendency to take on humid forms; they are suppurative, ecchymatous, impetiginous or rupial. It is in such patients that we observe precocious malignant syphilides with massive adenoid growths having multiple ganglia, and which may become fistulous. These growths may arise at the advent of the chancre and take the form of a syphilo-strumous bubo. Ocular symptoms are frequent in these cases; white pseudo-tumors are produced in the articulations; and, finally, it seems that scrofula induces syphilitic lesions in the mucous membranes of the larynx,

pharynx and nasal fossa. Thus cachexia is brought about rapidly, but the association of scrofula with syphilis gives rise to singular hybrid types of disease whose symptoms recall the characteristic forms of both maladies. But syphilis is not only acted upon by scrofula, it reacts upon tuberculosis. It is certain, for instance, that hereditary syphilis predisposes to lupus. It is equally certain that in persons predisposed to tuberculosis, syphilis provokes the development of this malady just as might be the case where the individual suffers from great anxiety, fatigue or poverty.

Alcoholism has a very marked, though not unvarying influence upon the gravity of syphilis, and it acts in four ways. In the first place, it predisposes the patient to the grave and precocious forms of the disease. Under such circumstances the syphilides take on an ulcerous character very quickly. Alcoholism also influences badly all the skin diseases of syphilis, and we often find these effects so clearly marked that we are able to diagnose alcoholism by the simple aspect of a syphilitic skin-lesion. Alcoholism also favors those subintraut forms in which the syphilitic symptoms or manifestations succeed each other almost uninterruptedly. It also determines those forms of syphilis which react upon the general health and cause cachexia. Finally, alcoholism predisposes its subjects to brain syphilis. It figures largely in the antecedents of the syphilitic insane, and in these subjects it may be said to shoot to the brain in like manner as it sprouts upon the skin.—*New York Medical Abstract.*

CALOMEL AS A DIURETIC.

JANDRASSIK (E.) "Calomel as a diuretic."—*Deut. Arch. f. klin. Med.* Bd. XXXVIII., p. 499, 1886.

Some of the older medical authors attributed to calomel, in certain combinations at least, a diuretic influence, but in recent books the beneficial effects sometimes arising from its use in dropsy are looked upon as due to its effect as a purgative. The improvement which followed the administration of calomel in a case of heart

disease with anasarca, in which syphilis was suspected, led Jandrassik to try it in a series of cases of dropsy, and from the results which he records at length in the *Deutsches Archiv* he has arrived at the conclusion that calomel in cardiac disease is a powerful diuretic if anasarca be present. In six out of seven of such cases he obtained distinct evidence of its potency.

Jandrassik gives calomel in doses of three to four grains combined with an equal quantity of jalap, and repeats the dose two to four times daily. It is difficult to understand his object in giving jalap, for he maintains that purgation hinders the diuretic effect of calomel, and that the mercury salt alone promotes diuresis, for it is effective by itself, whilst jalap uncombined does not influence kidney secretion. Diuresis commences, he says, suddenly on the second, third, or sometimes on the fourth day after the administration of the drug is commenced. Sometimes the urine discharge is enormous. In one case 330 ounces were passed in twenty-four hours; frequently from 100 to 150 ounces. In fact, he claims that calomel has a far more powerful influence on the secretion of urine than digitalis. The diuresis reaches its maximum in a few days, and then the quantity of urine passed gradually decreases, till in about a week or two it becomes normal. The amount and duration of the polyuria depends on the extent of the watery effusion. The influence of the calomel is perceived as soon as symptoms of the absorption of the drug (metallic taste in the mouth, salivation or stomatitis) appear. If purgation be produced, the effect of the drug is diminished or lost, and should it occur, an opiate is called for. It is not always necessary to continue the drug till diuresis sets in. As a rule it is better to give it for two days only, and await results.

Diuresis is best prolonged, after it has set in, by continuing the administration of calomel. Usually the dropsy is removed entirely by the increase in the urinary discharge, but if a little remain, or if it return, some days must be allowed to elapse before the calomel is repeated. It is possible to get a powerful effect time after time when the dropsy keeps returning, owing to the continuance of its cause. The specific gravity of the urine decreases with the polyuria, and the chlorides diminish.

Jandrassik does not find that calomel causes diuresis in healthy people. In a case of Bright's disease it failed to have any effect, and it was given without avail to a man with pleuritic effusion.

In the one instance of cardiac disease in which it was ineffectual, there was very little dropsy. Arterial tension is not increased by the administration of calomel, and in some of the cases digitalis was called for, owing to the weak action of the heart during the calomel polyuria.—*Medical Chronicle*.

THE PROPER RELATION OF VERSION AND EXTRACTION IN POINT OF TIME.

It has been held by some authors that after version from either transverse or cephalic presentations it is better to wait for a time before proceeding to the manual extraction. Or, in other words, that in cases in which malpresentations require correction, it is better to do pelvic version (externally or bimanually) before the os fully dilated, and then wait for full dilation before proceeding to the extraction, if such interference is necessary. With a view to demonstrating the inadvisability of this separation of the two operations in point of time, Winter has analyzed the material of the Royal University Clinic in Berlin from 1876 to 1884, and collected 310 cases of simple, uncomplicated transverse positions of full-term living children: from the examination of this material he has come to the following conclusions:

1. The teaching, that version and extraction should not be performed in immediate succession, arose from the false supposition that the footling case produced artificially by version has the same prognosis as the same presentation occurring naturally.
2. The earlier and generally adopted practice of performing version as soon as possible after the escape of the liquor amnii rests on the fear of the intra-uterine death of the fœtus, and especially of the increased difficulty of version after longer waiting.
3. Fœtal death does not occur alone from the premature escape of the liquor amnii, but only when tympanites uteri, unduly powerful pains, or tonic uterine contraction complicate the case.
4. Version cannot be rendered difficult by waiting until the dilatation of the os, for the dangerous thinning of the lower uterine segment does not occur until the expulsive stage; nor again, does

the ordinary clonic uterine contraction cause trouble in turning. Tonic uterine contraction, however produced, is a pathological condition, which is always to be avoided.

5. In normal cases children bear version and immediate extraction with safety.

6. Waiting after version before proceeding to extraction is very dangerous for the child, which often dies in utero, or is saved only by speedy extraction.

7. The causes of foetal death are injuries to the cord during the version, separation of the placenta, and entrance of air into the uterus.

8. Whether the membranes are ruptured or unruptured, version should not be performed until the extraction can be immediately proceeded with.

9. Only a definite indication, such as placenta prævia, prolapse of the cord, beginning infection, imminent asphyxia of the child, great thinning of the lower uterine segment, pure inertia uteri, demands early version, that is, before the dilatation of the cervix, and then for the most part in the interest of the mother.—*Boston Medical and Surgical Journal*.

TREATMENT OF STAMMERING.

In the *Bulletin de l'Académie Royale de Médecine de Belgique* for January, 1886, Dr. Chervin, of Paris, has an interesting article on the etiology and treatment of stammering. His treatment lasts only three weeks.

The *first week* is devoted to the study of the elements of speech, and to the methodic exercise of respiration. The respiratory rhythm must be established at the outset, and the patient must be taught to breathe and utilize his breath with a view to speaking. There are certain exercises of respiration, in which he teaches the subject how to inspire and how to expire, these acts being preceded by a moment of repose, during which the mouth is kept closed. Expiration is at first utilized in pronouncing the separate sounds, then combined sounds. The vowels are first chosen in the exercises, as

they are easier to pronounce than the consonants. These latter are taken up and each carefully studied. When the elements of speech have been perfectly studied, and the difficulties arising in connection with individual consonants have been overcome by special gymnastic exercises, the subject passes to the study of syllables, then words, and, finally sentences and paragraphs. During the first week the stammerer should abruptly break with his old manner of speaking. Dr. Chervin considers as a powerful aid in this work complete, absolute silence, which he imposes upon his patients during the first week. It is evident that as long as the principles of the method are not sufficiently known to the pupil, and he is not completely broken into their practice, he will not apply them in conversation. This rigorous silence has another effect. It quiets the pupil's mind, and makes him forget all about his stammering.

The *second week* the pupil regains freedom to speak. The time has arrived for him to apply the principles he has learned. Henceforward he can speak, because he no longer stammers; he restrains himself, and slowly puts into practice the instructions concerning respiration, the regular movements of the tongue and lips, etc.

It is always a surprise to Chervin to see the contortions, the spasms, the hesitations, the most marked repetitions, disappear under this method as if by enchantment. A clear, precise utterance succeeds the former stuttering; speaking will become natural, agreeable and harmonious, when the extreme methodic slowness imposed during the second week will have given way to an easier gait which is to be practised during the last week of the treatment.

The *third week* is employed in fixing the new habit of speaking with care and method, and in relieving the delivery of all tendency to choking. At the same time a careful study is made of the inflections of the voice.

In fine, Chervin replaces the very marked syllabation of the first days by a steady but slightly accentuated delivery, in which all the syllables are pronounced without precipitation, and, above all, without jerking.

During this last week, Chervin counsels his pupils to imitate persons who speak well; whose delivery, without being of pedantic slowness, is calm and deliberate; in whose voice the inflections are natural and varied; whose sentences, well modelled, both as to breathing and meaning, are easy to understand and pleasant to hear.

But at the expiration of the three weeks it must not be supposed that the pupil is entirely cured ; he is like a convalescent, who has still need of care and precautions in order to achieve a complete restoration. Special instructions must be given to him, whereby he may be able to continue the application of the method, and thus indelibly fix the habit of speaking properly.—*New Orleans Medical and Surgical Journal—Medical News.*

THE TREATMENT OF DIVIDED TENDONS.

For the treatment of tendons ruptured subcutaneously, the majority of the text-books on surgery recommend simple attempts at approximation of the separated ends by position, and, in the case of an open wound, suturing the separated ends. The former method has been very often adopted, with moderate success, and the latter has been used often enough, and successfully enough, to make it a well-established plan of procedure. In 1882, however, Heuck reported, in the *Centralblatt für Chirurgie*, a plan adopted with success by Czerny, which may be regarded as an improvement upon the methods just mentioned. In this case, Czerny, finding it impossible to bring together the ends of a subcutaneously ruptured extensor of the thumb, two weeks after the accident, did a sort of flap operation, which resulted in restoration of the power of extension of the thumb. Whether this was effected by direct union of the divided ends of the tendon, or by means of their union to the cicatrix in the skin, it is not easy to say.

Still another method of overcoming the difficulty presented by wide separation of the ends of a divided or ruptured tendon is what the French have called "union by anastomosis." This consists in grafting the peripheral end of the injured tendon to the continuity of a neighboring sound tendon. The operation has been done only a few times ; but it has proved so successful as to merit attention. The first account of its performance is somewhat apocryphal. Velpeau is said by Tillaux to have mentioned two such operations done by Missa and Champion. The earliest authentic case is said by Denonvilliers, in the *Bull. et Mém. de l'Acad. de Chirurgie*, for 1875, to have been done in 1873, by Polaillon, who sutured the peripheral ends of the divided

extensor tendons of the three middle fingers to the corresponding tendons of the thumb and little finger. In 1875, Tillaux reported to the Academie de Chirurgie a successful operation, done in 1874, in which, two months after the division by laceration of the extensor tendons of the little and ring fingers, he cut down upon them and sutured their peripheral ends to the extensor tendon of the middle finger. In 1876, Duplay reported to the same society a case in which he had successfully united the subcutaneously ruptured tendon of the long extensor of the thumb to the tendon of the extensor carpi radialis longior, by inserting the peripheral end of the former into a button-hole made in the latter, and fixing it there with a single wire suture. At the same time Tillaux reported that he had just done an exactly similar operation.

The most recent writer on this subject is Hager, who, in the *Berliner klin. Wochenschrift*, for May 31, 1886, describes an operation for the relief of what he calls, after Volkmann, a spontaneous rupture of the tendon of the long extensor of the thumb. The operation was done in 1885, and consisted in cutting down upon the tendon seventeen days after the rupture occurred, and attempting to find the divided ends. Failing to discover the upper end, because of its retraction, he cut the lower end off obliquely, and sutured it with catgut to the tendon of the extensor indicis, after having opened the sheath of the latter and freshened a suitable surface by scraping off the epithelium. Under antiseptic treatment the wound healed by first intention, and in two months the power of extending the thumb was almost restored, while in six months the movements of the hand were nearly normal, the thumb moving freely, even when the fingers were flexed into the palm so as to make a fist.

This admirable result confirms the previous experiences which we have mentioned, and encourages the hope that in this method we have a means of repairing an otherwise hopeless injury. -- *Medical News*.


PERITYPHLITIS IN TYPHOID FEVER.—Prof. Da Costa had, at the Pennsylvania Hospital, a rare sequel of typhoid fever--*perityphlitis*. He directed that it be treated with poultices, opium, quinine and supporting measures; the aspirator to be used if any evidence of pus appeared.—*Cal. and Clin. Record*.

EDITORIAL.

THE NORTH CAROLINA MEDICAL JOURNAL.

A MONTHLY JOURNAL OF MEDICINE AND SURGERY, PUBLISHED IN
WILMINGTON, N. C.

THOMAS F. WOOD, M. D., Wilmington, N. C.,
GEO. GILLET THOMAS, M. D., “ } Editors.

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ANALYSIS OF ONE HUNDRED AND NINETY-FIVE EXAMINATIONS MADE BY THE NORTH CAROLINA BOARD OF EXAMINERS FOR THREE SESSIONS IN 1885-1886.

We give below a tabulated statement of the result of examinations made by the Board of Examiners. It shows a very large amount of work done, and done faithfully and conscientiously. Some of the examiners, if not all, devote an average of fourteen hours out of the twenty-four during the four days sessions, in order to give all the candidates an opportunity to have a thorough examination, and prevent their detention and consequent expenses. That there should be some friction in the new machinery, and that there should be some impatience on the part of a few of the candidates who are kept waiting, with their nerves under tension for

many days, is not strange, nor is this feeling any less apt to occur on the part of the examiners, who, as we have stated, work fourteen hours of the twenty-four. It is pleasant to remark that the loyalty of the candidates shows how deeply imbued the entire profession of the State is with the justice of the law; from such material the future prosperity of the profession is assured, and in due time the beneficial effects of this great work will be seen and acknowledged by all true physicians.

Comments are unnecessary upon the work done by the colleges—an examination of the tables will enable those interested to make their own deductions:

LICENSED.

COLLEGE.	Graduates	Non-Graduates	One Course.	Total.
Jefferson College, Phila.....	11		5	16
Physicians and Surgeons, Balt.....	49	1	3	53
Louisville Medical College.....	10		1 (a)	11
Baltimore Medical College.....	2		1	3
University of Maryland.....	28		1	29
Bellevue Medical College.....	8	1		9
University of Virginia.....	3	2 (b)	2	5
University of Pennsylvania.....	4			6
L. I. Medical College.....	2			2
Kentucky School of Medicine.....	4			4
Leonard Medical School.....	3			3
University of New York.....	4		2 (c)	6
Vanderbilt University.....	1			1
Southern Medical College.....	1			1
Atlanta Medical College.....	1		1	2
Medical College, Va.....	2	1	1	4
South Carolina Medical College.....	5		1	6
Woman's Medical College.....	1			1
Physicians & Surgeons, N. Y.....	1			1
University of La.....	1			1
Nashville Medical College.....			1	1
(Non-Graduates, no College).....		1		1
Total.....	141	6	19	166

(a) Louisville Medical College and Atlanta Medical College.

(b) University Va. and Bellevue Medical College; University Va. and University of Maryland.

(c) University of N. Y. and Physicians and Surgeons, Balt.; University of N. Y.

REJECTED.

COLLEGE.	Graduates	Non-Graduates	One Course.	Two Courses.	Total.
Jefferson College, Phila.....		2			2
Physicians & Sur., Balt.....	6	4	4	1	15
Louisville Medical College.....	2	1			2
Bellevue, N. Y.....				1	1
University N. Y.....				1	1
" Md.....	2				2
" Louisville.....	1				1
" N. C.....			1		1
" Va.....				1	1
Atlanta Medical College.....	1				1
No School.....		2			2
Total.....	12	9	6	2	29

INFLUENCE OF THE SOIL ON THE PRODUCTION OF
PATHOGENIC FUNGI.

Some preliminary investigations have been made recently by Soyka (*Fortschritte der Medicin*, May 1, 1886, *Medical Chronicle*, July, 1886) on the relations which exist between the temperature and moisture of the ground on the life-history of a well-known fungus, the bacillus of splenic fever. The question of the infectiousness of the so-called pathogenic fungi is intimately bound up with the origin of the permanent forms. There is a vegetative form, which is very sensitive to external influence, easily perishes and is easily overgrown, and a permanent form, which resists extremely external agencies, and is hitherto known in the shape of spores. It is probably by this medication that infectious disease is carried, a modification which these organisms do not generally assume in the living body. Now, two factors have a special influence in spore formation, viz: the presence of oxygen and severe conditions of life, factors which will come into play in the soil. Convinced of the influence of the soil on spore formation, he selected the bacillus of splenic fever, as its botany was best known. The soil chosen was of quartz sand, chemically indifferent. Fresh anthrax fungi, care being taken to exclude spores, were introduced into the artificial soil, and moistened with the medium in which the fungi were cultivated, viz. a weak alkaline meat solution, to which was added one per cent. peptone and half per cent. of common salt. He determined that fluids containing anthrax matter, such as proceed from diseased animals and from carcasses will, in the ground, produce spores over the greater part of the year. We have not gone into the details of this experiment, as it is only preliminary, and is to be supplemented by completer observations, but it is a valuable point gained in following the life-history of a known bacillus into the soil, there to study its behavior, and finally to determine the conditions which more readily favor its growth, to follow its change of forms so as to unravel them, then to learn to apply this knowledge to the prevention of disease. So intricate is the polymorphism of most microscopic fungi, that it may be hoping too much to believe that, having thoroughly mastered one in its relation to its terrestrial and its animal parasitic life, we will have a knowledge of others; but we can say with confidence that the one having been achieved, we will be all the better prepared to learn the way of investigating others. We look forward to these completer studies with interest.

REVIEWS AND BOOK NOTICES.

INSANITY AND ITS TREATMENT. By G. FIELDING BLANDFORD, M.D., Oxon. Third Edition. Together with Types of Insanity, by ALLAN McLANE HAMILTON, M.D. Wm. Wood & Co., New York.

This work and that of Dr. Eichharst on Practice of Medicine, constitute the February and March numbers of Wm. Wood & Co's Standard Library. The work of Dr. Blandford was originally written in lectures for his class at the school of St. George's Hospital, but as it has reappeared in successive editions it has grown out of its first form into a full-fledged text-book. However, enough of its early character has been retained to make it a book for the student and general practitioner, as well as for the specialist in mental disease. The style is clear and pleasant, and we are sure the book will be read with profit. Dr. Hamilton's additions to the book consists in a short appendix, noting the marked changes in the appearance of the insane and in the change of bodily function. He has added eight plates as illustrative pictures of types of insanity, viz: idiocy, imbecility, melancholia, with delusions and chronic melancholia, subacute and chronic mania, dementia and general paresis.

DISEASES OF THE STOMACH. A Manual of Clinical Therapeutics.

By Prof. DUJARDIN-BEAUMETZ. Translated by E. P. HURD, M.D. Wm. Wood & Co., New York.

When we come across a work like the present the reflection promptly arises that the world—not the literary world only—owes nearly as much to the skilful, conscientious translator as to the original author. For what a sorry appearance does not a bad translation, of even the most meritorious composition make—how much its symmetry is marred, how much truth beclouded, how many sterling beauties miserably lost ! On the other hand, the good rendering of a foreign author gives a complete repetition of the pleasures of the native edition, with the additional satisfaction due to the examination of delicate, and often difficult work, ably performed, with the view to the extension of its usefulness.

The work under review is an admirable translation of the first volume of a series of three, under the title of *Leçons de Clinique*

Thérapeutique, by a confrère whose writings are well-known for their scholarly and scientific character. The profession and the public were already indebted to Dr. Hurd for several translations of an equally valuable character of medical works from *La Belle France*, and also for many important contributions to the medical journals of this country. The preface to the "Diseases of the Stomach" is both instructive and well written, giving an able, lucid explanation of the aim and scope of the author, which must materially help to the proper understanding of the book. Dr. Dujardin-Beaumetz is fortunate in having found a translator so well versed, also, in the French idiom.

This volume, in the words of the translator, is "an epitome of the useful labors of his (Dujardin-Beaumetz's) contemporaries, as well as his own valuable contributions to the healing art." He further pertinently says: "* * * What is really known about many a disease would fill a large volume, while what is known about the treatment may be comprised in a few pages. The busy practitioner, doubtless, needs the large volume, but he needs especially the chapter on therapeutics; and the volume that gives him a handy resumé of the results of a wide experience in the best methods of treating disease, will be the book which will be of the most practical value to him." Could the case be put more plainly, more effectively before the reader? It fully illustrates the scope and object of our French confrère. Throughout this work the important data are "set forth in strong light and grouped in a few masterly generalizations," which indicate to the practitioner "where his intervention is necessary, as well as the limits of that intervention."

While throughout the book valuable hints on the symptomatology and pathology of disease are given, the author's aim has been more to prevent a system of proper treatment, dietetic, hygienic and remedial, especially the two former, the last receiving, also, ample attention for all purposes. The author fully appreciates the importance of those two agents in the improvement of health and prolongation of life, having the endorsement of the examples of men like Sir Henry Thompson and Dr. J. Milner Fothergill, who are devoting so much time to the subject of constructive dietetics, and whose researches, especially the latter's, have been the means of dispelling the false theories which originated with Liebig, and were generally accepted by the profession, to the great detriment of thousands of invalids.

Dr. Hurd shows excellent judgment in his abridgements and con-

densations, many of his addendas being invaluable. Like Dr. Dujardin-Beaumetz, however, he regrets he has placed his notes at the end of each chapter, instead of at the bottom of the page, it being less easy to refer to them there. Some of these notes are of the greatest value, evincing an erudition and research far from common.

With regard to Dr. Dujardin-Beaumetz, the reflection suggested by his book is, that it is greatly to his credit to find him *au courant* with the most advanced medical science and literature of the day, foreign as well as French, rapid as have been their strides these many years past; and this is not inconsistent with his omission of a notice of certain remedial measures in vogue with us, both in America and England. He certainly shows fine discrimination in sifting the wheat from the chaff, being evidently desirous of presenting the reader with means and remedies which he himself knows to be useful. This, whether always perfectly right or not, has evidently been his leading aim. We find also with him a remarkable skill in assimilating and adapting to his use the suggestions of other professional men, thereby making them serviceable in the best sense. An indefatigable worker, painstaking in his researches no less than in his methods of procedure, no wonder he has produced important results in experiments with food, medicines and regimens, the study of which deserves the best attention.

Dr. Hurd certainly deserves high praise for his faithful, his sympathetic translation, in which the author's thoughts and language are accurately reflected, yet I must express my own individual taste as preferring the omission of such words as *vegetal* for vegetable, *empoisonnement* for poisoning, and other words and phrases wholly French, or more French than English, especially when the doctor's mastery of the two languages and extensive practice in the use of idiomatic English so well enables him to avoid even the slightest fault of style. The familiarity with a foreign language and the desire to be as close and faithful as possible to the thoughts and expressions of an author in it, do incline a translator to an occasional error of this kind.

It might be too much to expect in the compass of one volume all the medicines usually prescribed in a certain class of cases; but the most important should be set down, according to the manner of all good summaries. For instance, in the treatment of constipation, Ling's kneading of the bowels is wanting, and, in sea-sickness, nitrite of amyl and the bromide of soda, which are very important,

are forgotten ; also hydrastis canadensis and arsenic in cancer of the stomach, which, according to some authorities, have even effected cures ; and in progressive pernicious anæmia, static electricity and nitro-muriated acid. Among the means of superalimentation the zymimized suppositories and desiccated oxen blood are omitted. But it would be ungenerous to scrutinize for shortcomings, or dwell upon them, when we have in a modest space so much that is both interesting and instructive--a work that must prove a valuable help to the practitioner, while well-fitted to serve as a text-book, owing to its clearness, excellent condensation and the symmetrical arrangement of its material.—*Prosper Bender, M.D., Boston.*

CURRENT LITERATURE.

RATIONAL METHOD OF TREATING CATARACT PATIENTS TO THE EXCLUSION OF COMPRESSES, BANDAGES AND DARK ROOMS.

Since the 11th day of May sixteen cataract-extractions have been performed at the Presbyterian Eye and Ear Charity Hospital, on patients in public wards and in private rooms. With all of these the new method was adopted. The sole dressings to the eyes were pieces of diaphanous isinglass silk plaster, large enough to extend from brow to cheek, and from one canthus to the other. These pieces were soaked in water, and then thoroughly adjusted to the lid surfaces. This one dressing usually suffices for the entire treatment. If the straps become detached at the edges, as they did in some instances, they were replaced by fresh ones.

These patients were all operated upon in the operating-room on the second floor of the hospital, and all under the anæsthetic influence of cocaine.

They walked to their rooms immediately after the operation, ascending to the third and fourth stories.

When put to bed, the only instruction to them was to leave the eye undisturbed.

No restrictions were put on their movements, nor as to diet.

One patient was found walking about on the second day. Several got out of bed on the third.

At no time were the rooms so dark that reading by others could not be enjoyed.

No water dressings were used.

The straps were finally removed on the fifth or sixth day.

All the patients bore the ordinary room-light without photophobia or lachrymation, and without the protection of smoked glasses.

By the seventh or eighth days patients were able to move about the house with eyes unprotected and with a degree of comfort unknown during the previous eight years' existence of the hospital, and to the 582 patients from whom cataracts have been extracted up to the 11th of May, 1886.

The revolution in the after-treatment of cataract and iridectomy patients in this hospital is complete. From this time hence all bandages, compresses and dark rooms will be among the things of the past, to be remembered only by the discomforts which they occasioned.

From my month's experience I am forced to the conviction that the hyperæmia, photophobia, lachrymation and painful weakness of eyes after cataract-extraction, are largely, if not altogether, due to the methods of eye dressing in universal use, and are, therefore, induced by the treatment, and not by the disease.

A patient applies for treatment with matured cataracts. He stands light perfectly well up to the moment of operation. While lying on the operating-table, with cataract extracted, with pupil doubly enlarged by the iridectomy, and with the strongest light in the face, he suffers no inconvenience and makes no complaint of its harshness. When the lids are closed the amount of light straying through them into the eyes is about the same as that to which he was accustomed before the cataract was extracted. Which is the more reasonable mode of treatment—leave him in this natural condition, or at once plunge him into utter darkness by covering the eyes with bandages and compresses, and by putting him in a room so dark that even his attendants cannot see to get about? When he emerges from this confinement, at the end of eight or ten days, by the removal of the bandages, is it surprising that the eyes should weep, and that light should be painfully offensive? Try your good

eyes without operation with the bandages, and see if they will not behave in a similar manner.

Then, again, as to bandaging. We do it believing that the incised corneal wound requires support, which it undoubtedly does; but do we fulfil the indications by the methods we adopt? Heretofore I have thought so when I applied over each eye a square piece of soft, wetted cloth, then a ball of raw elastic cotton, which the supporting bandages would press equally on all parts of the wounded eyeball. Grant that this was all secured, and that the proper support was obtained when the patient leaves the operating-room, what is the condition when he gets into bed? His movements upon the pillow draw, necessarily, the bandage, unequally toward the side pressed by the head. No bandages, however elastic and however nicely adjusted, can keep up at all times, in the varied positions, of the head, equable pressure on any one surface.

The comfort to the patient is immense. The comfort to the attendant incalculable. There is no longer the dreaded darkness to the patient, nor the gloomy room to the attendant. We hear of no more stumbling over furniture nor complaints from friends that their eyes have been made weak by the confinement. Then when the straps are removed and the eyes are opened, the surgeon sees for himself the good, strong eye, instead of hearing from the darkness the complaint of the patient that tears are streaming down his face from the little light which his over-bandaged eyes cannot now stand. From this point convalescence is rapid. In a very few days patients are ready for dismissal, and that without having used any protection spectacles. Still I advise patients on leaving the hospital to use smoked glasses for the sunny street.

I have already had some to discard this advice as unnecessary. Two patients came for inspection to my office, four days after their dismissal from hospital, and two weeks after the cataract-extraction operation, walking through the bright streets without any protection whatever.

Of the sixteen cases of cataract-extraction treated by this new method, three of whom being very recently operated on, are still with closed eyes under the adhesive straps, I have had the most gratifying results. Most of them have been brilliant illustrations of the efficacy of this simple treatment. In no case have I had the weeping eyes of a former experience, all of them standing the light

well the day the adhesive strap was removed. It is a revolution complete in eye dressings, and experience has proved it to be a wise and very beneficial change, which must meet with universal acceptance, even if it does break up one of our long and most confirmed habits.

With cocaine as the local anæsthetic, and adhesive straps as the eye dressing, with light rooms in which friends can read for the entertainment of those operated upon, cataract patients will in the future have little to dread from pain or confinement.—*J. J. Chisolm, M.D., in Am. Jour. Ophth.—Medical Analectic.*

[Recent communications show that in New York and Philadelphia hospitals Dr, Agnew and Dr. Lewis, for several years, have adopted the above plan.—*Ens.*]

WHAT THINK YOU OF IT?

On my return home from New Bern, where the State Medical Society and Board of Medical Examiners met, I fell in with Dr. W. Strudwick, of Hillsboro, who told me that before the late war between the States, when slaves were owned by most of the planters, there was a favorite negro who got hurt in some way, and afterwards got his feet and legs wet, which resulted in a case of traumatic tetanus. His father, who was a physician, and himself, were called to see the man. His father had an ounce of quinine wrapped up in a blue paper. He measured out ten grains and gave the negro, and then measured ten more as a simple dose, instructing the lady—his mistress—to give him that quantity every hour until they returned. The lady was taken very sick, and when the time came for the negro to have the medicine she told her husband to go in and give it, that it was in a blue paper. He overlooked the small paper and gave the negro what was in the large one—260 grains, at one dose. When the doctors returned the next morning, they found him resting well, and very wet with sweat, and to their astonishment all symptoms of tetanus were gone. His recovery was rapid, and there were no bad effects following the unreasonably large dose of quinine.

Since that time, he said, he had treated two other cases of traumatic tetanus with success, giving each *one hundred grains* at a

dose, repeating every hour until the symptoms gave way. He stated that he had never had any bad symptoms to follow the administration of this quantity in a case of traumatic tetanus.

I asked him if he had ever published these facts and he said he had not.

The doctor stands very high in the estimation of the people and the profession where he is known, and is regarded as strictly reliable.

Now, what do you think of his treatment? Some of our most useful knowledge has been discovered accidentally. It was an accident that led Dr. Marion Sims to invent his Duckbill Speculum—so of many other discoveries. Now, if one hundred grains of quinine can be given at a dose, and a like dose repeated every hour until three hundred grains have been given (as was done in one of his cases), without any bad effects, it is certainly something new in the administration of that particular drug.

Another question naturally arises: "Will any other disease bear such large doses, or does it act in this particular disease as whiskey does in the bite of a poisonous snake? It is known that in dangerous snake-bites men have drunk as much as a quart of strong whiskey without intoxication or any serious effects. Then, may not a man suffering of traumatic tetanus bear quinine in like proportion? If quinine in such unreasonably large doses will cure traumatic tetanus, the profession ought to know it, hence my object in this communication, besides they are greatly indebted to that mistake for this knowledge.—*J. A. Reagan, A.M., M.D., Wearerville, N. C., in Philadelphia Medical Summary.*



THE DIGESTIBILITY OF VARIOUS KINDS OF FOOD ACCORDING TO VANDERBCK.—*Meats*.—Easy to digest: Mutton, venison, hare, sweetbread, chicken, turkey, partridge, pheasant, grouse, beef. Hard to digest: Pork, veal, goose, liver, heart, brain, lamb, duck, salt meat, sausage. *Fish*.—Easy: Turbot, haddock, flounder, sole, oysters, trout, pike. Hard: Mackerel, eels, salmon, herring, salt fish, lobster, crabs, mussels, cod. *Vegetables*.—Easy: Asparagus, French beans, cauliflower, beets, potatoes, lettuce. Hard: Artichoke, celery, spinach, boiled cabbage. *Fruits, etc.*—Easy: Baked apples, oranges, grapes, strawberries, peaches, cocoa, coffee, black tea, claret. Hard: Apples, currants, raspberries, apricots, pears, plums, cherries, pineapples, chocolate, pickles, beer.—*Journal of Reconstructives.*

SAL ALEMBROTH—SIR JOSEPH LISTER'S LATEST ANTISEPTIC.

It may be news to a great many to learn that Lister has discarded the use of the spray almost entirely, the only cases he has used it in during the past fifteen months being operations involving the peritoneum. I have heard him say that of late he has become convinced that it was by no means to the antiseptic properties of the spray that the good results have followed. After careful examination and study, he believes that the germicide properties in a solution of 1-40 carbolic, thrown by the spray into the air three or four feet, to be nil, or nearly so, and the sole benefit derived was due to the irrigation and absolute cleanliness induced. Carbolic acid was superseded by perchloride of mercury; this, when used for dressing, was, from its forming an insoluble albuminate of mercury, irritating, and thus an unsatisfactory dressing. He now uses sal alembroth exclusively in his wards for dressings, and it has so far given very fine results. It is a double mercurial salt formed by the sublimation of a mixture of perchloride of mercury and chloride of ammonium, exceedingly soluble. The salt was known to the alchemist; it has not been used in medicine in modern times. Lister prepares his dressings now with a 1-100 solution of this, gauze cotton-wool, lint, bandages, draw-sheets, and where the wound is covered by the shirt it is rendered septic by dipping it in the solution and drying before the fire. To make any of these dressings all that is necessary is to soak them in this solution and dry. It, not being volatile, does not require to be sealed in tin cases. He also colors these dressings with an aniline blue 1-1000, the benefit to be derived from which is that wherever an alkaline discharge comes in contact with the dressing, the blue is removed and turned reddish, enabling you at once to see where the discharge has been, if the quantity was ever so small and had dried up before the dressing was removed. There is one precaution in using this dressing, and that is this: the dressing being dry and frequently handled might have some septic matter from bed-clothes, hands, etc., so he always dips it in 1-2000 perchloride just before applying it. He is making a sal alembroth protective, which will be surcharged with the antiseptic, so that, as a discharge comes through a dressing, it will come in contact with this protective and can be kept aseptic.—*Can. Ph. Jour.—American Practitioner and News.*

ANNUAL MEETING OF THE SOUTH CAROLINA MEDICAL ASSOCIATION.

The South Carolina Medical Association convened in its annual session in Camden, April 20th, 1886, President O. B. Mayer, Jr., in the chair.

Addresses of welcome were delivered by Gen. D. J. Kenedy and Dr. Deschaupure in behalf of the citizens and the Kershaw County Medical Society.

The President's Annual Address was delivered, which was replete with interest and information. He showed the great benefits that accrued to the people at large, as well as the profession who were present, from the general dissemination of knowledge and experience which had been gained during the past year, and he therefore urged a general attendance, and pointed out the numerous advantages to be gained therefrom.

Dr. S. W. McBride, of Springfield, Missouri, sent an article on placenta prævia, and it was read by proxy. He narrated a case in which the condition of central implantation was not discovered until the patient was so exhausted from hemorrhage that the uterus failed to contract and death ensued. He drew the following conclusion: "In all cases of complete placenta prævia after the seventh month to temporize is folly; delay is fatal; deliver at once, the opinion of many good men to the contrary notwithstanding.

Dr. Charles W. Kollock read a paper on sarcoma of the orbit, with recovery.

Dr. J. C. McMillan read an article on antipyrine, its nature and uses. He concluded as follows: 1. The temperature falls gradually and remains so for from twelve to eighteen hours, when it again rises; hence it does not exterminate disease, but relieves unfavorable symptoms. 2. The pulse and respiration decrease in proportion to the fall of the temperature. Not only are the pulse-beats diminished, but also the tension. 3. It is indicated in pneumonia phthisis, typhoid fever and other diseases where a reliable antipyretic is essential. 4. It gives rise to very few secondary symptoms, and in this respect is superior to quinine, which causes tinnitus aurium, anorexia, etc.

Dr. T. L. Parker showed two interesting specimens of diseased

testicle, one a strumous testicle, and the other almost complete ossification or calcification of the tunica vaginalis, so much so that when an incision was made into it the walls flew open and remained so, resembling greatly a clam shell with the interior removed.

Dr. George G. Kinloch showed specimens of bladder and urethra, containing incised stones, one of which had been removed from the urethra, and one was so much incised in the walls of the bladder that it was entirely concealed. He showed, also, a knife which his father, Dr. R. A. Kinloch, had devised for the purpose of opening long fistulous tracks and introducing a seton at the same time. It had a concealed blade with an eyelet on one side, through which a seton could be passed and left in position.

Dr. Cornelius Kollock reported three cases of laparotomy, with recovery, in which he had depended entirely on cleanliness and hot water. He claimed that when carbolic acid became strong enough to be germicidal it was homicidal, and also stated that this article was regarded by many of the most experienced surgeons and ovari-otomists as worse than useless. Keith, Bantock, Von Bruces and Lawson Tait all say that they do better without than with it, and that the time was fast approaching when soap and hot water would be the only reliable antiseptics.

Dr. J. K. Bratton, of York, reported a case of double uterus and double vagina complicated with post-tubal pregnancy—laparotomy with successful result. The doctor's case was unique and created considerable comment and discussion.

Dr. James Graves, of Darlington, read a long and exhaustive article on puerperal fever. He endeavored to prove that the mor-
bific principle was produced by ptomaines, and cited several cases in support of his assertion, where it had been directly attributable to that source, i. e., retained placenta and pus from an old ulcer. He was an implicit believer in cleanliness and disinfection as a means of cure.

Dr. F. Peyre Porcher reported cases of aspiration of the chest (third series), eight pints of purulent effusion having been withdrawn in one case.

The following officers for the ensuing year were then elected :

President—Dr. Cornelius Kollock, of Cheraw.

First Vice President—Dr. J. K. Bratton, of York.

Second Vice President—J. W. Moore, of Spartanburg.

Third Vice President—W. C. Wannamaker, of Orangeburg.

Corresponding Secretary—Dr. J. L. Dawson, Jr., of Charleston.

Recording Secretary—Dr. W. Peyre Porcher, of Charleston.

Treasurer—Dr. Deschaupure, Jr., of Charleston.

The Society then adjourned, to meet in Aiken, on the second Tuesday in April, 1887.

W. PEYRE PORCHER, M.D.,
Rec. Sec. S. C. M. A.

CORRESPONDENCE.

WILLOW GREEN, Greene County, N. C., }
August 5th, 1886. }

Messrs. Editors North Carolina Medical Journal:

In order for our home MEDICAL JOURNAL to become emphatically *multum in parvo*, the medical profession of the State must take interest enough in it to subscribe and pay for it, also furnish clinical experience to its columns. Thus actuated, I indite the following attempt to commit suicide with chloral hydrate:

Mr. F., aged 45 years, who has been paying supreme homage to the shrine of Bacchus for the past eight years, and who, in that time, has had several attacks of *mania a potu*, sent to me the first of June with a request that I send him some chloral hydrate, as he had been drinking for some days, and was very nervous—could not sleep, and feared another attack of *delirium tremens*. I sent him a four-ounce bottleful of chloral hydrate in solution, 120 grains to the ounce, making 480 grains, with written direction to take a teaspoonful every hour till sleep was induced. He took two teaspoonful doses from the bottle, which had the desired effect, therefore the balance was put away.

On the 14th day of June just after dinner, then very drunk, at 12 M., he informed his wife that he was wearied with the troubles and vexations of life, and therefore was going to commit suicide. His good wife, for she is a most excellent lady, thought but little of what he had said, and did not notice him for some little time, but in a few moments sent her niece to look after her absent husband. Just as the niece entered the door of the room

he was in the act, and did gulp down the balance of the contents of the four-ounce bottle, which contained 420 grains. A messenger was at once sent for me, but I was professionally engaged, and did not reach the bedside of the gentleman until seven hours after he had gulped, as I thought, a lethal dose of chloral. I carried with me a stomach-pump, but it was of no good, as absorption had done its work. He fell into a sound sleep very soon after taking the chloral, and every attempt failed to arouse him. When I arrived, at 7 P. M., his face was flushed, the eyelids were closed, the pulse was quick (140) and bounding, and he log-like as to sensibility; deglutition was a failure, therefore I was forced to rely upon artificial heat applied locally. I could not afford to take the risk to use the antidote, strychnia, though I would not hesitate to give chloral as an antidote for a lethal dose of strychnia.

Mr. F. made a happy return to consciousness next morning, about nineteen hours after taking the dose, and stated that he did take, as said by the niece, all the contents of the bottle, and I know that the bottle did at first contain 480 grains chloral hydrate, weighed, and not guessed at. He admits that he was very drunk at the time of drinking the chloral, having drank not less than one quart of spirits that morning. Now, this looks like too many coons up a chloral tree, yet I am satisfied in my mind that they were there.

This case proves, beyond the shadow of doubt in my mind,, that the chloral was antagonized by the alcoholic stimulants taken before it.

"A dose of thirty-five grains of chloral proved fatal in thirty-five hours to a young lady aged 20, while there have been two cases of recovery in which doses of 160 grains were taken, and one in which a man recovered after taking 180 grains dissolved in syrup.—*Brit. Med. Jour.*, 1875, p. 778."

Recovery in the above cases is said to be owing to treatment, My case made a good recovery, but I cannot say it was my treatment, but think he took the antidote before he did the chloral.—

Very respectfully,

E. H. HORNADAY, M.D.

DR. JANEWAY speaks highly of frozen milk in irritable stomach; nutriment and anti-phlogistic measures are combined.

LONDON LETTER.

LONDON, July, 1886.

Messrs. Editors North Carolina Medical Journal:

Prominent among the medical societies of London is the Ophthalmological Society of the United Kingdom, which holds its meetings in the metropolis. Mr. Jonathan Hutchinson has for three years been its President—a man whom one of our best informed North Carolina physicians has described as a specialist in every department of medicine. He stands as well among his professional brethren in London as with the world at large. There is no one for whose opinion the surgeons of the city have a higher regard. But if it is a rule that very distinguished men may be picked out in a crowd by their personal appearance alone, Mr. Hutchinson is an exception. He seems scarcely more than fifty years old, is tall, rather thin and round-shouldered, has dark hair and a dark complexion, an intelligent but homely face, and might pass himself off at the State Fair or anywhere else, as a North Carolina farmer without the slightest fear of suspicion. When he speaks, however, you say at once that there is a master. Yet he is not dogmatic. It is a pleasure to listen to him. His style is simple and straightforward, and he has his large experience at ready command.

Besides the President, discussions were participated in, while I was present, by Dr. Hughlings Jackson, Dr. Carter, Mr. Nettleship and many others. Dr. Jackson, a man of large frame and fine appearance, with grey hair and beard, very much marred the effect of his remarks by speaking in such a low tone that he could be heard with great difficulty. The same may be said of Mr. Nettleship, who has a peculiarly muffled voice, to which it is anything but agreeable to listen. He has, however, one of the keenest intellects in the profession, and being still comparatively young, and already one of London's first oculists, is sure of a still more brilliant future. The man whose contribution to one of the recent meetings was the most polished and brilliant, from a literary point of view, was Dr. R. Brudenell Carter. This was a paper on "Some Practical Points in the Extraction of Cataract," and was in the nature of a reply to one by Mr. Anderson Critchett, in which he had advocated the rejection of the speculum and the elevation of the upper lid by the middle finger of that hand of the operator which held the fixation

forceps. Dr. Carter agreed with him in regard to using no speculum, saying that he had given up its use for many months. His method of dealing with the upper lid was to have it extracted by a Noyes' elevator in the hands of an assistant. In the discussion which followed it became evident that the differences of detail in the operation were as many as the number of speakers. It is the same case at Moorfields. No two operators proceed in exactly the same way. The most interesting method is one with which Mr. Nettleship is now experimenting. It consists in combining a procedure employed by Mr. Couper with one lately introduced by McKeown, of Dublin. After doing an iridectomy, he introduces a Förster's forceps, which is like the ordinary iris forceps, except that the blades are toothed along their convexity for about a quarter of an inch from the points, opens the blades in the middle of the anterior chamber, as widely as the iris will allow, presses the teeth gently, but firmly, against the anterior capsule, closes and tears away as much of it as will come. Frequently it gives way along the periphery and is drawn out entire. No curette is used. He then presses out the lens and washes out any remaining soft matter with a stream of warm water introduced into the anterior chamber through the nozzle of a Teale's suction tube. Distilled water is used and is rendered aseptic, so far as possible, by boiling and stopping the flask, while steam is escaping, by a rubber stopper. This is supplied with two glass tubes, one of which furnishes the water for the nozzle, on the syphon principle, and the other, while admitting air, is plugged with cotton to prevent the entrance of germs. The washing out of the soft matter is done by McKeown by means of a syringe, as described in the *British Medical Journal* of June 20th, 1885.

This operation, when successful, offers very brilliant results, since there is no capsule or soft lens matter left behind to obscure the vision, but it behooves conservative surgeons to await the verdict of time before trying it in private practice. Mr. Nettleship's first operation was followed by iritis, although very carefully performed. Of the second I do not yet know the result.

English medical men have their controversies in regard to professional ethics as well as those of the United States, although they have no prescribed code. There is quite a bitter feeling exhibited at present by general practitioners against the consultants.

This class is more numerous and more clearly defined than is the case with us. Many surgeons and physicians engage in consultation practice and hospital work to the exclusion of everything else. It is not infrequent for a young man who has sufficient means to admit of such a course to fit himself for this kind of practice and never engage in any other at all. His method of doing this is to continue for years in attendance upon the practice of one or more of the hospitals (paying the prescribed fee therefor) until he succeeds in securing some hospital appointment, when he considers the foundation of his fortune as laid. The general practitioners are complaining that many of the consultants are not only taking private cases of their own, which is not considered actually illegitimate, but are also robbing them of the patients brought to them for consultation. When a wrong is sought to be set right the Englishman's first step is the formation of an association; and so in this case an association has been formed to deal with the evil complained of. It is sought to establish a rule that no consultant shall treat any case not brought to him by a general practitioner, and in the meantime any consultant who shall offend by "absorbing" a patient brought to him by a member of the association, is threatened with the boycott.

A recent visit to some of the wards of King's College Hospital with Sir Joseph Lister, confirms the opinion expressed in a former letter as to the commendable way in which the material at hand is used for instruction. The liberty of accompanying the visiting physician or surgeon in his daily rounds is not confined to the students; any medical man may do so, and, by paying a fee, may do so habitually. The wards of a London hospital are much the same as those anywhere else. The operating room is small in comparison with the immense amphitheatre at Bellevue. It is called here the theatre. No seats are provided, the tiers of benches are for standing room only, and have heavy iron railings on which to lean. They rise so steeply from the area that in some theatres the students sitting on the railings, as they very frequently do, seem to be in imminent danger of falling upon the table. Lister is a ruddy-faced, fine-looking, portly Scotchman. He is a careful, but not a rapid or particularly brilliant operator. He stated that since October last he had not used the spray at all, and said, with a smile, that since giving it up he had had better results. He still applies the antiseptic principles in other respects, the bichloride of mercury taking the place of carbolic acid to a large extent.

The bichloride solution is colored blue as a ready means of identification. This seems to be a general fashion, and blue gauze and cotton are now plentiful in all the hospitals.

The most brilliant operator in general surgery whom I have seen is Mr. Bryant, of Guy's, although Sir William McCormac and Mr. Christopher Heath are very fine. In an amputation of the breast by Mr. Bryant, the cutting was finished in a few seconds, although there was no haste or apparent straining at rapidity. There are some who seem to pride themselves on their quickness.

A fellow-countryman was present at St. Bartholomew's when Mr. F. Howard Marsh was doing an amputation in the lower third of the thigh, and, as the operator was about to begin, turned to speak to a student behind him. When he looked to see the operation, the leg was off. The late Dr. Wood, of New York, used to tell the students, with great relish, how he showed a British surgeon how the Americans could operate. He inveigled the British into doing an amputation first, and, after this had been slowly and carefully finished, a second case of the same kind was brought in. He took the knife with a flourish, had the limb off in twenty seconds, and turned the case over to an assistant to dress.

One of the most fascinating places in London for a doctor is the Museum of the Royal College of Surgeons, facing one side of Lincoln's Inn Fields. It is better known by the name of the Hunterian Museum, in honor of that great man who is so often spoken of as "the immortal John Hunter." The magnificent collection of 10,000 anatomical preparations to which Hunter so enthusiastically devoted his life, was bought by the Government a few years after his death, in 1793, and was presented to the College of Surgeons. Many and important additions, by purchase and gift, have since been made, and it is one of the largest and best arrayed medical museums in the world. It is contained in three large rooms, each having two extensive galleries, so that there are practically three stories. To give an idea of its vast extent, it may be stated that eighteen volumes are required for the mere catalogue of the specimens in the first room alone. Normal human anatomy, especially osteology, is very fully represented. Of crania there are between one and two thousand, including specimens of every race and of many different ages, from the ancient Egyptian to the present, not to mention prehistoric fragments. Of much interest is the skeleton of the Irish giant, O'Bryan, seven feet seven inches

high, which Hunter spent so much time, trouble and money in stealing. In striking contrast to these enormous bones, is the skeleton of a girl of ten years, which is only twenty inches high. In the same case are the remains of the notorious thief and thief-catcher, Jonathan Wilde, hanged in the last century, and others of more or less interest. The Museum is also particularly rich in comparative anatomy, apparently the whole animal kingdom being represented, vertebrates and invertebrates, fossil and recent. Thorough completeness seems to have been aimed at. It is a striking illustration of the far-reaching character of medical science when the skeletons of whales and other large existing mammals and of various gigantic animals are found in a medical museum. Some of them are of special interest: the dog is represented by the skeleton of the favorite deerhound of Sir Edwin Landseer, the horse by that of a Derby winner, the tiger by that of the first one killed by the Prince of Wales. The physiological series also includes the lower animals, as well as man, and fills three galleries. The specimens are, most of them, preserved in spirit. Those showing the results of some of Hunter's experiments, described in his lectures, are very interesting, such as the cock's heads with spurs and human teeth growing in the comb. Of course the importance of pathology, in all its branches, is fully recognized. Among the many hundreds of specimens illustrating injuries and diseases, is a portion of small intestine having upon it a small cancerous nodule. It formed a part of the collection of Sir Astley Cooper, and was given him by Dr. Barry O'Meara as coming from the body of Napoleon I. It is believed by many to be genuine, but there is evidence which makes this doubtful. The reports of the surgeons who made the autopsy speak of the intestines as being normal, and it is known that the great man's attendants took care to prevent anything being removed. The series of calculi is very large, and there are many concretions of different sorts from the domestic animals, including a hair ball, from the stomach of an ox, forty inches in circumference, and an intestinal stone, from a horse, weighing nearly eighteen pounds. The valuable collection of Toynbee, illustrating the diseases of the ear, is also here. The cases containing parasites are also well filled. But perhaps the gem of the pathological division is the exhibit representing the diseases of the skin, presented by Sir Erasmus Wilson. It consists of 589 models, casts in wax and plaster, drawings, photographs, engravings and preparations. The models in wax are marvelously well executed. There is absolutely

nothing to be desired in the study of diagnosis except the aid given by the sense of touch.

When medical men have access to such museums as this and to such libraries as the one in the same building belonging to the College of Surgeons, and have the advantage of so much hospital experience, it is not surprising that the leaders of the profession are to be found, as a rule, in the large cities. All the greater honor is due to those who rise to prominence without the advantages enjoyed by their more fortunate brethren.

K. P. B., Jr.

UNIVERSITY OF VIRGINIA—NEW PROFESSORS.—We are gratified to learn that Dr. William C. Dabney has been elected Professor of Medicine, Medical Jurisprudence and Obstetrics, to take the place of Dr. J. F. Harrison; also, that Dr. W. B. Towles has been chosen Professor of Anatomy and Materia Medica, to succeed Dr. J. S. Davis. We consider the new selections very judicious, and feel satisfied that the standard of scholarship will be sustained at its previous high grade.

It is said that the average price of drugs has fallen, within the last three years, fully one-third. In some special instances the cause for the decline is apparent; in others, authorities differ. In the case of quinine there has been a reduction from \$3 in 1880 to 52 cents at present. In opium, the course of prices has been similar, the ruling quotation of 1880 being \$4.75 a pound, against \$1.75 to-day. In the case of quinine, the supply has been vastly increased of late years by the cultivation of the cinchona tree in Ceylon and Java, and the production of a richer bark; a bark yielding two per cent. was formerly considered merchantable, whereas the present average yield is more than double that. The production has doubled, while the demand has remained the same. The present price returns so poor a profit to the growers of the bark, that many plantations have been destroyed during the last year to make way for tea or other culture. Quinine, moreover, was sometime since, by a change in the tariff law, put on the free list, while opium remained subject to duty. Opium varies in price according to the stringency of laws against its importation or use in various countries, the American market being at present so over-stocked that a lot was recently sold at less than \$1.75 a pound, which cost \$4 not more than a year ago.—*Boston Medical and Surgical Journal*.

NOTES.

PROF. BARTHOLOW recommends salicylic acid for removal of bile pigment from the blood, says the *American Medical Digest*, after the cause of the jaundice has been removed. Its action is prompt and satisfactory.

THE metallic taste from iodide of potassium solution may be avoided by taking a fresh solution. A solution of the salt after a fortnight has a pale, straw tint, due to its beginning decomposition; this altered fluid it is which imparts the taste and metallic odor to the breath.

WE have received the announcement of the Fourteenth Annual Meeting of the American Public Health Association, to be held at Toronto, Canada, October 4th-8th, 1886. For the purpose of securing as large an attendance as possible, the committee will send certificates, giving the benefit of the reduced rates of transportation to all persons who express a desire to become members. Dr. P. H. Bryce is the chairman of the Local Committee of Arrangements, and Theodore S. Covernton is the chairman of the Transportation Committee, both at Toronto. The Conference of State Boards of Health will be held at the same time and place.

DR. PENN (*Texas Courier Record*, June, 1886) reports a case of splenitis of malarial origin, which resisted all treatment and resulted in loss of the organ. The doctor found a small red circle near the umbilicus, with a fluctuating center, into which he made an incision. There was no pus from the incision, but a thick fluid, like coffee-grounds, and following this the substance of the spleen was expelled, which was free from adhesions, measuring twelve inches in length by seven in width, "sack-shaped," externally smooth, internally honey-combed. The patient made a good recovery, and has since been in excellent health and entirely free from malarial trouble.

ATROPINE AND WHISKEY AS AN ANTIDOTE FOR CARBOLIC ACID.—Dr. S. E. Bascom, of Salt Lake City, Utah (*Philadelphia Medical Times*), reports a case of carbolic acid poisoning that recovered under the administration, hypodermically, of two minims of solu-

tion of atropia, gr. 4 to $\frac{3}{4}$ j., and two drachms of whiskey. The patient was unconscious, cyanatic, almost pulseless, respiration rapid and irregular, with mucous râles throughout both lungs. The mother had given several ounces of olive oil. The case was considered hopeless, and the treatment was adopted more to satisfy friends than from any expectation of favorable results.

COCAINE IN GYNECOLOGY.—Dr. George Woodruff Johnson, in the *Medical Record* of July 17th last, has compiled a large number of instances of the use of solutions of cocaine in operations upon the vulva, vagina and uterus, the report coming from surgeons in this country and Europe. The extent of the field of usefulness of this new agent seems quite large and well determined. In vagissimus, irritable carbuncles, ulcer in vulvo, vaginal fold, vaginal hyperæsthesia and dysparemia from any cause except traumatic and congenital stenosis, the application of pledgets of cotton saturated with cocaine has effected sufficient insensibility, and maintained it long enough, to allow of careful examination, dilatation or a minor operation on the parts. The strength of the solution took a wide range, between four and twenty per cent., and the duration of insensitiveness was likewise different in the experience of the various operators. The cocaine solution, however, promises to fill the place of ether in minor operations, and to be without the danger and discomfort which always attends anæsthesia from the latter agent or from chloroform.

TOLERANCE OF THE ORGANISM.—The Paris correspondent of the *Medical Record* of the same date says Dr. Robin communicated to the Medical Society of Hospitals of Paris the history of a patient, and he gave it the above name. An old woman, 79 years of age, died in a hospital with the sequelæ of pneumonia. She had been treated by the narrator on different occasions for slight attacks of bronchitis, but her life had been spent in what she considered fair health. The autopsy, however, revealed that she had been afflicted with a double aneurism of the abdominal aorta, which had cured spontaneously, and that all the biliary ducts, intra- and extra-hepatic, were dilated and filled with calculi of different dimensions.

DR. A. M. FAUNTLEROY, one of the best known physicians in Virginia, died at his residence in Staunton, Va., on June 19th. Dr.

Fauntleroy was born in Warrenton, Va., on July 8th, 1837. He was educated at the Virginia Military Institute, and at the University of Virginia and University of Pennsylvania. He entered the United States Army as assistant surgeon in 1860, but resigned his position when Virginia seceded. He served during the war as surgeon and chief medical officer of the staff of Gen. Joseph E. Johnston, and also as medical director of the department of North Carolina, located in Wilmington. At the close of the war Dr. Fauntleroy located at Staunton, where he has since resided. He has enjoyed a large practice in the Valley, and has held numerous positions of responsibility and trust. For several years he was in charge of the Western Lunatic Asylum, located at Staunton.—*Maryland Medical Journal*.

HAVING made arrangements with the *Therapeutic Gazette* and *American Medical Digest* by which we can offer those valuable journals in combination with the NORTH CAROLINA MEDICAL JOURNAL at reduced rates, we make the following offer to new subscribers and to those who wish to renew their subscriptions :

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READING NOTICES.

UTERINE INFLAMMATION.—*Rio Chemical Company*.:—Mrs. W. H. consulted me on January 20th, 1886. On examination she was found to be suffering from chronic uterine inflammation, elongation and ulceration of the os uteri, with antiversion, and the usual concomitant symptoms, such as frequent desire to micturate, inability to walk, etc. Her womb was easily replaced, but returned to its abnormal position on her attempting to walk. Various kinds of pessaries were attempted, the ulceration having been previously

healed by the use of the nitrate of silver and the glycerine plug, but their presence could not be tolerated. The recumbent position was then enforced for a fortnight. During this period her only treatment consisted of mild saline aperients at intervals of two or three days, and the exhibition of Aletris Cordial in drachm doses three times daily, gradually increased to two drachms. She then began to take gentle exercise, and has steadily improved, and is in expectation of soon becoming a mother. She had never been pregnant previously.

HY. BAYFIELD, L.R.C.P., Surgeon.

1, Somen Villas, Lavender Hill, S. W., London, Eng., April 3, '86.

—(o)—

CHRONIC STARVATION.—Upon whatever other points they may differ, authorities on dietetics agree that nitrogen is the most essential of all foods, and that a certain amount should be taken regularly. Diminution of the quantity of food, whether from inability to procure it, or a disinclination for it, generally means decrease or absence of nitrogen. That this leads to dire results is a well established fact. Graily Hewitt, in an address on "Chronic Starvation and Delicate Females," before the British Medical Association, said: "For the last ten years or more I have carefully inquired into the history of patients suffering with uterine and ovarian disease, or some affection incidental to child-bed, and I have found a continuous insufficiency of food, especially the nitrogenous, to have existed almost universally, so that I have naturally come to regard this chronic starvation as an important factor in disease."

The serious troubles arising from insufficient nourishment are also shown in a marked manner in the case of delicate females during gestation, a large proportion of whom are so enfeebled by the constantly recurring paroxysms of vomiting and the consequent diminution of food assimilation, that when the period of parturition arrives they are so reduced in strength as to be particularly susceptible to the attacks of disease incident to child-birth, and the offspring is ushered into the world puny and feeble, and especially liable to a complication of physical evils solely attributable to its starved and anemic condition.

Colden's Liquid Beef Tonic contains precisely the elements indicated by Dr. Hewitt as being so essential, combined with citrate of iron, cinchona and simple aromatics, forming at once a palatable nutriment and reliable tonic, and its range of usefulness embraces all cases of debility of whatever origin. It has been in use fifteen years, and those who have used it most are most emphatic in its praise.—*Massachusetts Medical Journal, Boston Mass., June, 1886.*

—(o)—

INGLUVIN.—A very learned name for a remedy is Ingluvin. It is the essential principle of the gizzard, and bears the same relation to

poultry that pepsin does to the higher animals. The honor of its discovery and utilization, in its crude state, remotely dates with the Chinese astronomer, as well as to the Causasian chemist, in its refined condition. From time immemorial the inhabitants of the Celestial Empire have used the gizzard of chicken and ducks in nearly all made dishes. Their writers have recommended the practice as a sovereign treatment of dyspepsia, weak stomach and vomiting. A favorite prescription of Chinese physicians for chronic indigestion is to cut up and digest chicken gizzards in hot water until they are reduced to a pulp, and then add some spices. A tablespoonful or two of the resulting paste is taken at each meal until the patient has entirely recovered. From China the practice passed to other parts of Asia, and was adopted here and there among the Mediterranean peoples. Strange to say, it was never learned by the great nations of Europe until the latter part of the present century. On the other hand, the organic chemists of Europe discovered, about 1850, a powerful nitrogenous radical in the gizzard. Experiments thereafter showed it to possess many of the qualities of pepsin. These experiments led to its isolation. Numberless experiments have proven it to be a very valuable addition to therapeutics. Where pepsin refuses to act, and where, in severe cases, it has been rejected by the stomach, Ingluvin effected relief rapidly and with the greatest ease.

In four recent cases of poisoning by root beer (Brooklyn, June, 1886), Dr. George Everson, Jr., a well-known physician of that city, reports that after pepsin and all similar compounds had been rejected by the stomachs of his patients, Ingluvin stayed the retching and enabled them to retain and digest food.

Prof. Robert Bartholow, M.A. M.D., LL.D., in his late work on "Materia Medica and Therapeutics," says:—INGLUVIN.—This is a preparation from the gizzard of the domestic chicken—*ventriculus callosus gallinaceus*. Dose, gr. v.—ʒj.

Ingluvin has the remarkable property of arresting certain kinds of vomiting—notably the *vomiting of pregnancy*. It is a stomachic tonic, and relieves *indigestion*, *flatulence* and *dyspepsia*.

The author's experience is confirmatory of the statements which have been put forth regarding the exceptional power of this agent to arrest the vomiting of pregnancy. It can be administered in inflammatory conditions of the mucous membrane, as it has no irritant effect. Under ordinary circumstances, and when the object of its administration is to promote the digestive function, it should be administered after meals. When the object is to arrest the vomiting of pregnancy, it should be given before meals.—*From the American Analyst, August 1, 1886.*

NORTH CAROLINA MEDICAL JOURNAL.

THOMAS F. WOOD, M. D.,
GEO. GILLET THOMAS, M. D., } Editors.

Number 3. Wilmington, September, 1886. Vol. 18.

ORIGINAL COMMUNICATIONS.

REPORT OF THE CHAIRMAN OF THE SECTION ON MEDICAL JURISPRUDENCE.

By J. D. ROBERTS, M.D., Goldsborough, N. C.

(Read before the North Carolina Medical Society, at New Bern,
May 21, 1886.)

(Continued from the August Number.)

Dr. Charles E. Johnson, in writing of this test, asks: "Who is to be the judge of what is right and what is wrong?" All men's judgments are not the same on this or any other question. What the judge, with his learning, would denounce as an iniquity, the jury, perhaps less informed, might view very leniently as a mere peccadillo, and the prisoner in the box, with none of the advantages of education, usages of polite society or Christian influences, would look upon as no wrong at all.

Physicians who have given any consideration to the matter, know

that this test is impracticable ; that the symptoms by which insanity is recognized are as variable almost as the number of cases. To claim that because a man has a knowledge of right and wrong he is sane in all cases, is erroneous, or even that because he has the power to resist the wrong and keep to the right, he is sane, is not true. It is within the province of the law to say that this shall be a test of responsibility, *perhaps*, but when the question of insanity arises, the jurist, knowing nothing of the disease, should leave it to the physician to diagnose. If insanity is to be the test of responsibility, then the knowledge of right and wrong as a criterion is an error bequeathed to us as another instance of "that jealous affection and filial reverence, which have converted our (legal) code into a species of museum of antiquities and legal curiosities," along with the right of trial by evager of law or by ordeal. Dr. C. H. Hughes, in an editorial ("The Judicial Psychology of the Guiteau Trial"), writes thus of the subject : "And even when the learned judiciary, whose province it is to *interpret* rather than *make* pathological laws, as it is likewise his province to determine what municipal laws *are*, and not to *make* them, forms a judicial psychology not sustained in the laws of morbid mental movement, sound psychiatry may be thereby set back a quarter of a century or so before courts ; but the truths of psychiatry remain the same as though no judicial fiat had sought to make them what they are not, and they will ultimately appear uppermost, despite judicial decision that they are what they are not.

"To ignore motives and resistless impulses of mind deranged, does not, and will not, obliterate them as facts from the phenomena of mental disease."

I cannot better close this special feature of the question than by quoting from one of the legal profession, who, in speaking of the medical and legal professions, says this of the jurist : "He contributes little or nothing to the stock of human knowledge. He has given himself to the study and application of a science—if indeed it be a science—which as often deals with artificial principles and dogmas as with great abiding truths. In grasping at the philosophy of jurisprudence he is fettered, even in this day and generation, by precedents of scholastic absurdity, which date back before the Wars of the Roses, and by statutes, the very records of which were lost before the Reformation. The scientific aim and

effort of his professional life is to show that 'thus it is written.' The legacy which he is able to leave behind him to society is therefore rarely better, in its best estate, than a tradition of high faculties fearlessly and honestly dedicated to justice and duty."

This decision, or rather test, of accountability in alleged insanity before the courts, is probably founded on the belief that the will of man is preëminent, controls all mental faculties, and acts independently of them. Volition is not an abstract quality of the mind, with a definite nervous centre, but is dependent for its action on many contingencies in connection with the other functions of the brain. Volition can be exercised only after deliberation, which we generally call reason or the reasoning powers of the individual; this is but the recognition of certain ideas or experiences of a painful or pleasant character consciously recalled by an act of memory. Thus to produce the best results as to man's power of exercising his will there must be complete harmony of action with all the brain functions, and he who best harmonizes these functions by judicious exercise, will approach the nearest to perfect power over those ganglionic cells which are the *associated* centers of ideas which control that faculty called volition."

Should there be such a state as to impair the utility of these cells in the brain there will be a want of harmony in the performance of function, the connecting links will be severed, and the action resulting will not be the same as in a healthy organism. Indeed, we see daily the effects of such action in that we have better control of our feelings, desires, etc., at one time than another. How often do we find our whole mental faculties given over to the consideration of some subject most probably faithful, in spite of any will power we may exert, keeping us awake through the long hours of the night, and forcing itself into our dreams should we doze. And yet the man whose brain is diseased, whose thoughts are consequently morbid, in whom this healthy power of the will is lost by reason of inharmonious action, this man, who has lost all control of himself by reason of disease, is expected by the stern edict of the jurist to exert more will power, and put away an unpleasant thought or refrain from an action, than the man in full possession of his powers of mind.

Every alienist can recall numbers of cases where the insanity was beyond doubt, still having a knowledge of right and wrong, but

where irresponsibility was evident. No cast-iron rule to fit all cases can be made, nor can any single test be applied that will be just and equitable. The question in cases of alleged insanity should be, Was the action the result of a brain diseased in such a manner as to interfere with function? Or, as it has been stated, How has *disease* distorted the normal relationship of the man to the crime and surroundings"?

Time and again has this question been discussed in all its bearings, from both legal and medical points of view, with always a like result—each claiming the victory in the contest, and each pursuing the same course as before: the jurist still clinging to his cast-iron rule, and the physician holding to the faith he has in scientific studies and psychological medicine.

Another principle in the execution of our laws in relation to insanity to which I would take exception, is found in the Supreme Court decision requiring that "Hereditary insanity can only be shown where it is of the same kind as the prisoner's."

Chief Justice Pearson, in rendering this decision, speaks thus of hereditary insanity: "It is a lamentable fact, admitted by everyone, that such maladies are hereditary; and it would seem that the proof of the fact, that members of the family so related as to have the same blood, are, or have been, afflicted with a like malady, is admissible as a circumstance, when aided by other circumstances, and would go to show the insanity of the prisoner, although, of course, evidence of such hereditary taint in the blood, would only be one link in the chain, and would not *per se* establish the fact; but the question as to the policy or expediency of admitting such evidence in legal investigations, presents many and very great difficulties; it is wrong to exclude what may lead to truth, and yet such evidence would in numberless cases lead to falsehood, and screen the guilty in defiance of truth. On the other hand, we find it in some degree an open question in the legal authorities. Thus far the way seems to be clear: in order to render it admissible the species of insanity alleged, and that offered to be proved in respect to members of the family, must be of the same character; and the instances to be proven must have been notorious, so as to be capable of being established by general reputation, and not left to depend upon particular facts and proofs, but about which witnesses may differ, and the consequence of which would be to run off into num-

berless and endless collateral issues; so that in trying the question of the insanity of one, the supposed insanity of a half dozen would be drawn in."

If I understand the decision, it means that a case of mania produces mania in the offspring, should the insanity be transmitted. In other words, it does not recognize a transformation of type in the inheritance of this malady.

This decision is, I judge, founded upon the acknowledged difficulties in the way of admitting testimony as to heredity, following, perhaps, the Scotch law partially, which does not admit testimony of this character. That injustice would often be done by following this entirely, a compromise is effected by conforming to Esquirol, one of the first systematic writers on the subject of insanity, who wrote over a half century since. He says: "Hereditary mania manifests itself among the patients and children often at the same period of life. It is provoked by the same causes and assumes the same character." Granting that Esquirol was right, it is by no means proven that this is the rule, for in fact it might be said to be an exception, for alienists of the present day, after longer study and more experience, differ from him on this point.

An inherited tendency to insanity is dependent on so many contingencies for its development, that it is impossible to tell what form it will assume, even if insanity should supervene. By surrounding the person with the necessary safeguards in the way of mental hygiene, avoidance of troubles, excitement, etc., the tendency may not culminate in an outbreak of insanity at all. The character or form of the insanity is influenced, in a large measure, by the exciting cause, whatever, it may be. It may be the death of a friend, a reverse of fortune, the excitement of politics, religious fervor, or many other occurrences in daily life.

Spitzka alludes to the frequent intensification of the malady in the progeny, and this can be verified in almost any neighborhood, certainly in any county, can be found families degenerating as to the various nervous affections. This degeneration and intensification of the transmitted neurotic diseases is admitted by most of the writers of the present day. But we go even farther than this, and assert the transformation of type in the progeny. Owing to the difficulty in obtaining the history of cases of hereditary insanity, I have not prepared any statistics on the subject. My own observations coincide with the views quoted here.

Stearns says: "It is not the case, however, that definite forms of insanity always repeat themselves, but, on the contrary, change, so that a case of mania may appear in the second generation as a case of melancholia or acute dementia, and *vice versa*, melancholia may appear as dementia. * * * It is not necessary that the tendency towards unstable mental action should be fully developed in the parent, in order that it may so appear in the child. * * * Great singularity of conduct habitually displayed, periods of depression, irritableness and nervousness, when crossed with similar characteristics in the other parent, or other unusual ones, not infrequently develop into actual insanity in succeeding generations."

Hereditary action is held by Maudsley "to be rather of the nature of a complex chemical combination whereby compounds, not resembling in properties their constituents, are oftentimes produced, and not of the nature of a more mechanical copy." Again, he says: "Anyone who will may make the observation that when two persons of narrow and intense temperament, having great self-feeling and distrustful of others, and prone themselves to cunning ways and hypocritical dealings, mean in spirits as in habits, perhaps deceiving themselves all the while by an intense affectation of religious zeal, of evangelical, ritualistic or other extreme type, unite in marriage and have children, they lay the foundations of insanity in offspring more surely often than an actually insane parent does."

Grisenger says on the subject of heredity: "At present we can claim for tuberculosis alone an influence of hereditary circumstances in some degree equal to that exhibited by mental diseases." "Sometimes hereditary mental disorders present essentially the same characters in parents and children, and occasionally also in a whole line of brothers and sisters, appearing at the same age and terminating in the same manner, as, for example, suicide. Frequently, however, this is not the case; the psychical disorder manifests itself in different ways, partly dependent on external circumstances."

Bucknell and Tuke, in their work on "Psychological Medicine," say: "But while the same form or type of mental disorder may descend from one generation to another, it is also certain that not only may one form be succeeded by one of a very different character, but by other neuroses, as epilepsy or chorea. * * * Gaussail held that nothing is transmitted but the aptitude for some form or other of nervous disorder, and that this is wholly determined by causes subee-

quent to birth. Lucas shows that, as in an individual any nervous affection may be transformed into another, and thus prove the consanguinity of those disorders, so may the like transformation take place in parents and children."

In writing of heredity as a cause of insanity Dr. Mann says: "Insanity also may appear in the same form in succeeding generations, or it may assume an entirely different form, or even assume another form of nervous disease. Thus, it is common to see cases in which the patient, suffering from mania, the offspring may develop symptoms of epilepsy or chorea."

Chief Justice Gibson, of Pennsylvania, in admitting evidence tending to show hereditary transmission of insanity, reviews the dicta of Chitty and Shelferd as to its being an established rule of law that such evidence shall not be admitted, and says the only case where it was brought up the question was avowedly dodged, and the decision arrived at on another point of law, and says the authority of a question appealed from and left *in dubio* cannot be very great." "What if the point had been ruled by the chancellor and law judges in the House of Lords? Professedly learned in the maxims of the law, they were profoundly ignorant of the lights of physiology; yet free from the presumptuousness of which ignorance is the foster-father, they refused to rush on the decision of a question to which they felt themselves incompetent."

That the question of the admission of testimony bearing on heredity presents many difficulties is evident; it is also evident that in the light of the better knowledge of the present day, and the teachings of psychologists, that the decision now under discussion should be modified. If testimony as to heredity is to be admitted at all, let it be in accordance with the whole truth, and not by suppressing the part which may be of most use to the prisoner on trial. Many more references as to the transformation of the type, or, as the Supreme Court decision has it, "species or character" of insanity inherited from the parent, might be given, but these are deemed sufficient, especially as we can verify the position taken within our own experiences.

Non-expert testimony is allowed in insanity trials; that is, persons not physicians are allowed to testify, giving an opinion as to the sanity or insanity of the individual, but with this difference: while the expert bases his opinion on the testimony of others, and

not necessarily from observation exclusively, the non-expert can give his opinion only upon his personal observation. Judge Gaston, in rendering a decision on this question, uses the following language : "But judgment founded on actual observation of the capacity, disposition, temper, peculiarities of habit, form, features or hand writing of others, is more than mere opinion. It approaches knowledge, and *is knowledge*, so far as the imperfection of human nature will permit knowledge of these things to be acquired, and the result thus acquired should be communicated to the jury, because they have not had the opportunities of personal observation, and because they can in no other way have the observation of others."

I have already discussed the subject of what an expert is, but wish to add a few lines here. In investigations before the courts, many matters other than medical questions, demand testimony of a peculiar character from persons so situated by profession, study or observation, as to be enabled to come nearer the truth than others not enjoying the same advantages. A rickety bridge over a stream on the public road, may be pronounced unsafe by the whole neighborhood, because it has gone so far in its decay as to be evidently so to all. An immense iron structure spanning a river may seem the very embodiment of strength and durability to the general observer, yet pronounced unsafe by the engineer. Because the general observer was competent to judge of the condition of the first bridge, would or should his opinion be taken against the experts in a court of law as touching the second? A severe wound may be recognized as dangerous by any observer, while a stab, with little or no bleeding, may not seem dangerous; whose evidence is better than the surgeon's on this point? The insanity of the raving maniac is recognized immediately by all with whom he comes in contact, but who is to judge of the phases of insanity where the outward show is slight?

Under a decision already quoted, and I believe under the common law, the question of insanity is a question of fact for the jury. In other words, the jury is to judge of the insanity of the prisoner at the bar from the evidence presented. Even though they may have never seen a case of insanity, have never studied the subject, or even read a line in regard to insanity, it is their duty to pass judgment upon a matter that has taxed the brain and consumed the time of giants in intellect, without arriving at a satisfactory conclu-

sion. For assistance they have as witnesses men on a par with themselves as to real knowledge of the subject—the attorney, who has gained his knowledge of a *medical* question from a *legal* textbook, and the judge, who delivers a charge on what is insanity, with the musty decisions of by-gone days as his guides. Is it any wonder that the insane man is often convicted, or that the culprit often escapes punishment on the plea of insanity under such a state of affairs?

While non-expert testimony is competent and is often used in insanity trials, it is held that the testimony of the physician in regard to the mental state of a person is of more importance than that of a non-professional witness, and the following charge was delivered to the jury: “* * * That it was the business of a physician to understand the disease of the mind as well as of the body, and that his opinion for that reason was entitled to higher consideration than ordinary witnesses.” The Supreme Court, in reviewing this charge, uses the following language: “It may be said of the physician that he is, by the nature of his studies and pursuits, particularly skilled in the mental as well as in the physical diseases of men, and with respect to the parties upon whom he is in constant attendance, he must be supposed, as well from his superior knowledge, as from his better opportunities of observation, to be particularly well-informed as to their state of mind. What, therefore, the judge thought proper to say upon the subject of the witnesses mentioned, we do not think liable to any just exceptions.”

Did time permit, there are other decisions on matters relating to insanity that might be profitably reviewed, but as I fear I have trespassed already too long, I will here simply refer to them, and may perhaps enlarge on them in the future. The subjects of moral insanity and moral debasement are treated of in the cases of *Mayo vs. Jones*, 78 N. C. R., 402, and *State vs. Brandon*, 8th Jones, 463, neither of which is recognized. A subject of much interest, and one which should be thoroughly studied by the expert on insanity, is what evidence can be introduced as to insanity, or to show insanity. We have Supreme Court decisions on it in the famous *Johnson will case*, *Wood vs. Sawyer*, *Philips' Reports*, 251; *State vs. Cunningham*, 72 N. C. R., 469; *Barker vs. Pope*, 91, N. C. R., 164.

I have tried to show some of the objections to the existing state

of facts as regards the law and the doctor, and wish that I might suggest a remedy that would be accepted. Our hands are, in a measure, tied. We can point out these errors, and give our reasons for the necessity of a change, but as the courts have *all* the authority, we can do nothing more than urge the truth and justice of our position. Dr. W. C. McDuffie recognizes this evil in a recent article, and suggests that the decision of the whole matter, so far as the insanity is concerned, should be left to the doctor.

Dr. Buckham, in his little work, urges that the superintendents and first assistant physicians of our asylums of a — number of years experience should have as part of their official duties the giving of testimony on insanity whenever required by proper authority, and without compensation. He makes several suggestions in the way of safeguards to be thrown around such experts. To have a commission composed of doctors alone, or perhaps doctors and lawyers, to judge of these cases, or to leave it entirely to an expert, *and the court be governed by such decision*, is open to objections, for we are met on the very threshold with a constitutional enactment granting to every citizen that great bulwark of liberty, the right of trial by jury. All reforms, to be permanent, should be gradual, and there is much need of care in dealing with this subject. Let us as physicians go forward fearlessly, honestly and conscientiously doing our whole duty—more we cannot do.

AUTHORITIES QUOTED IN THE FOREGOING ARTICLE.—Journal of American Medical Association, Vol. 4, No. 18, May 2, 1885; Journal of the American Medical Association, Vol. 5, No. 20, Nov. 14, 1885; The Polyclinic (Philadelphia), Vol. 2, No. 7, p. 105; State vs. Dollar, 66 N. C. R., 626; Horton vs. Green, 64 N. C. R., 64; State vs. Clark, 12 Iredell, N. C. R., 151; State vs. Clark, as above; Flynt vs. Bodenhamer, 80 N. C. R., 205; Barker vs. Pope, 91 N. C. R., 165, and State vs. Bowman, 78 N. C. R., 509; Clairry vs. Clairry, 2 Iredell, N. C. R., 78; State vs. Pike, 49 N. H. R., 399, also American Reports, Vol. 6, p. 533. From Dissenting Opinion of Judge Doe, 579; State vs. Haywood, Philips, 376. ("It is not every kind of frantic humor or something unaccountable in a man's actions that points him out to be such a man as is exempted from punishment; it must be a man that is totally deprived of his understanding and memory, and doth not know what he is doing, no more than an infant, than a brute or wild beast; such a one is never the object of punishment.")—*Maudley's Responsibility*, p. 90. Wharton and Stillee Medical Jurisprudence, Sec. 159; Buckham's Insanity in its Medico-Legal Relations—Appendix, p. 221, where the different opinions of judges are given in groups; American Reports, Vol. 6, 584; American Reports, Vol. 6, 581; State vs. Brandon, 8th Jones,

N. C. R., 468; Insanity in its Medico-Legal Relations, 133; Insanity in its Medico-Legal Relations, 181; Alienist and Neurologist, Vol. 4, No. 1 (Jan., 1883), 141; Insanity in its Medico-Legal Relations, 242; Maudsley's Physiology of Mind, Chap. on Volition; Alienist and Neurologist, Vol. 4, No. 1 (Jan., 1883), 143; State vs. Christmas, 6 Jones, N. C. R., 471; Esquirol's Treatise on Insanity (1845), 49; Insanity. Its Classification, Diagnosis and Treatment, by E. C. Spitzka, 86 (edition of 1883); Insanity: Its Cause and Prevention, by Henry Putnam Stearns, 129; Maudsley's Pathology of Mind, 92; Maudsley's Pathology of Mind, 95; Mental Pathology and Therapeutics, by Grissenger (Wm. Wood & Co's edition, 1882), 106-109; Psychological Medicine, by Bucknell and Tuke, 63-64; Psychological Medicine and Allied Nervous Disorders, by E. C. Mann, 55; Clary vs. Clary, 2 Iredell, N. C. R., 78-83; Cornelius vs. Cornelius, 7 Jones, 593; North Carolina Medical Journal, October, 1885; Insanity in its Medico-Legal Relations, by T. R. Buckham, 172.

NOTE.—I wish to acknowledge my indebtedness to Hon. Walter Clark, Judge Fourth District, for valuable aid rendered in the preparation of this paper, and to the members of the Goldsborough bar for the use of books from their libraries, and for other favors shown.

J. D. ROBERTS.

CLINICAL REPORT—PROBABLE WANT OF CONNECTION BETWEEN MENSTRUATION AND OVULATION.

By R. L. PAYNE, Jr., M.D., Lexington, N. C.

(Read before the North Carolina Medical Society, at New Bern, May 21, 1886.)

Gentlemen:—That menstruation and ovulation are coincident, is a fact which has been well-established by physiologists, but that the forces which bring about the one do not necessarily cause the other, is also so well-established that I am sometimes tempted to believe that while we must regard these processes as coincident, we are in no position to claim that they are necessarily interdependent. There are numerous cases on record in which pregnancy, which necessarily implies ovulation, has occurred in virgins without any previous menstruation, and it is by no means rare to meet with women who, nursing one infant, become pregnant with another without ever having seen any sign of the menstrual flow.

Again, cases occur in which all during pregnancy the menstrual

flow recurs regularly, and yet we feel certain, from the progress of development and decline of the corpus luteum of menstruation and the corpus luteum of pregnancy, that during pregnancy the process of ovulation is in abeyance. Two cases illustrating the probable want of connection between menstruation and ovulation have lately come under our care, and may not prove uninteresting.

Case 1.—Mrs. L., married six weeks, came to me to learn why her menses did not occur. She had pain in her breasts, some morning sickness, morbid appetite, etc. I, without thinking any possible exception could be taken, suggested the idea of pregnancy, when the patient and mother, who accompanied her, became very indignant, and declared such could not be the case, because the girl, who had previously been perfectly regular, had missed her period a month prior to marriage. No vaginal examination was allowed, and so—though in my own mind I was not satisfied that pregnancy did not exist simply because the period failed to recur one month prior to marriage, and knowing full well that such accidents add materially to the number of seven- and eight-month babies born in early wedlock, I modified, as best I could, the offended parent, and prescribed a simple tonic. Two weeks later the menses appeared, and the young madam told me very triumphantly of my mistake, but her breasts were already showing the changes marking the advance of pregnancy, and six weeks later, exactly four and a half months from the time of the first disappearance prior to marriage of the menstrual flow, quickening occurred. The menses recurred regularly from the time of the reappearance until the eighth month of the pregnancy, when she again missed her period, and exactly at the end of nine months, counting from the date of the first disappearance of the menstrual flow, she was delivered of a fully developed baby. Incidentally I may remark that at the time of labor several convulsions occurred, and for three or four days thereafter the patient lay with widely dilated pupils, perfectly conscious, but perfectly blind.

Case 2.—In the second case, which has now been under observation about four years, the history is briefly this :

Mrs. B., multiparæ, has had five pregnancies, the last of which occurred five years prior to the time of her first coming under our care. At this confinement she says she had a very hard time, and the placenta which was adherent was not removed till the end of twenty-four hours.

Since the beginning of this pregnancy, now five years ago, she has had no appearance of the menses. She is now suffering (at the time of coming under my care) with cervical endometritis, and is quite anæmic. She was given local and general tonic treatment. The cervical catarrh readily yielded to treatment, and the general health was very much improved, but the menses did not appear. The tonic treatment was continued, and every remedy supposed to be of use in the treatment of amenorrhœa was faithfully tried, even the much vaunted permanganate of potash, but without avail. Electricity was not used, because, for many reasons, it was impracticable. At length all efforts to re-establish menstruation were abandoned, and the case regarded as one of early established menopause. Drs. Boismont, Guy, Tilt and others have observed cases in which the menopause was established at ages varying from twenty-one to sixty-one years, and placing my patient in this category, I considered that, at the early age of twenty-seven years, the date of her last menstruation, she had attained the climacteric. She had no further treatment for the amenorrhœa, and I saw nothing more of the patient till sometime during the fall of 1885 she called at my office complaining of debility. After careful examination, I could detect nothing apart from general debility, and so I prescribed a simple tonic, and again the case passed from under my care. Up to this time there had been no show of the menses, and I further add that during the whole progress of the case there has been no evidence of periodical congestion of the pelvic organs, as witnessed by pain in the back and limbs, a sense of fulness in the pelvis, and such other symptoms as are usually present when abortive efforts to menstruate occur. I saw nothing further of the case till about two months ago, when she came to my office to ascertain the cause of the enlargement of her abdomen, which was gradually growing in size. Her general health seemed good, and my father, who examined her, did not hesitate to diagnose a pregnancy. A few weeks subsequent to this visit she fell into premature labor, and I delivered her of a very feeble babe of perhaps six or seven months development, which only lived a few hours. Again, I found the placenta adherent, more perfectly so than in any case I have ever before seen, and it was with the greatest difficulty, and after the most prolonged effort, that I succeeded in tearing, and scraping with my finger-nails, curette fashion, the placental tissues from the fundus of the womb. Even now I do not feel sure that all was removed, and a sharp

attack of metritis, complicated with septicæmia, followed, which well-nigh cost the life of the patient. It must be rare that pregnancy will occur nine years after the menstrual flow ceases, and hence I have thought the case of sufficient interest to report to this Society. Again, as before remarked, nothing could better illustrate the fact that menstruation is not one of the necessary concomitants of ovulation, and *vice versa*.

PARACENTESIS PERICARDII.

By SAMUEL WESTRAY BATTLE, M.D., U. S. N., of Asheville, N. C.

Samuel Reynolds, brickmason, white, aged 60, native of Georgia, admitted to Mission Hospital, Asheville, N. C., July 21, 1886.

Patient is of good physique, fairly well nourished. Gives vague history of rheumatism several years ago. He has been ill for a month, his health generally having failed him. He complains of ill-defined pains in left half of trunk from shoulder to hip, front and rear, but there are no subjective symptoms pointing to the heart or its envelope. Upon inspection the facies is observed to be anxious, the respiration hurried and superficial. Closer examination elicits a much enlarged area of cardiac dulness; heart sounds muffled, distant and feeble; pulse intermittent and barely perceptible at the wrist, at times not at all so; hands and feet cold and a clammy sweat is upon the brow and extremities. Upon consultation with Drs. McGill and W. D. Hilliard, the diagnosis of effusion into the cavity of the pericardium, with imminent heart paralysis, is confirmed, and it is decided to aspirate, and that right quickly. Consent of patient being gained, a valvular incision is made in the skin, in the fifth intercostal space, at a point corresponding to the normal apex beat, this being about the centre of the pyriform tumor made by the distended pericardial sac; a medium-sized aspirating needle, attached to the exhausted graduate, is introduced into the tissues and the stop-cock at once opened, that the fluid may start immediately upon the needle reaching the sac. Straw-colored fluid, to the amount of 17½ oz., is withdrawn with the most gratifying results. The pulse has returned to the wrist, the heart-

sounds, though still muffled, are easily distinguishable the one from the other; the breathing is easier; the whole aspect of the man has changed, and Mars, at least for the nonce, has relaxed his grip. A glass of whiskey and water is ordered, and the following, to be commenced at once:

℞.	Digitalis tincturæ.....	3j.
	Jaborand. ext. fl.....	} āā 3j.
	Tongaline	

Siq.—Teaspoonful every four hours.

August 12.—Three weeks have elapsed and there are as yet no signs of reaccumulation of fluid in the pericardial sac. By noon of the day following the exhibition of digitalis, jaborandi and tongaline, nausea and diaphoresis were produced, and the medicine was given less frequently. Two days later, tincture digitalis and fluid extract of stigmata maïidis replaced other medicine, and these, in conjunction, are still continued. The heart-sounds have cleared, but are not normal, some degenerative change in the valves and walls having been probably taking place for sometime.

The first sound has lost its booming quality, having become short and valvular like the second, and is now and then intermittent; no indefinable murmurs. Patient is comfortable, sleeps well, breathes easily and naturally, eats well and takes daily exercise without discomfort. In fine, there seems no reason why he should not regain his former moderately good health.

GALEN ON THE TREATMENT OF OBESITY.—“The best method of getting thinner consists in gradually withdrawing from the body that whereof there is superfluity, and in strengthening at the same time those parts which had been expanded. Bodily exercise will undoubtedly prove very advantageous, as we see stout horses getting lean by heavy work. Thus, likewise, those will never grow fat who are obliged continually to toil with hard labor. This, however, requires great precaution, it being certain that fat people frequently run danger of death when attempting violent bodily exercise.” And Galen says: “Regular alvine motions, energetic bodily exercise, a moderate life, a diet which, although satiating, yields but limited nourishment; which explain why Hypocrates advises stout people wishing to grow thin to dine on vegetables cooked with fat, in order that they may become satiated by a small quantity of food.”—*Medical Record*.

SELECTED PAPERS.

DR. BILLINGS' ADDRESS BEFORE THE BRITISH MEDICAL ASSOCIATION — MEDICINE IN THE UNITED STATES AND ITS RELATION TO COÖPERATIVE INVESTIGATION.

Very promptly after its delivery, that is, the day after, the *Boston Medical and Surgical Journal* gave complete the text of Dr. Billings' long-looked for address, and the *Medical Record*, *Medical News* and *New York Medical Journal* the day after, the whole matter having been in type for sometime.

The subject of the address includes several topics upon which Dr. Billings has been long laboring, and in giving to the British profession an insight into the condition of the profession in this country there is no one who could speak with more accuracy and authority. Prefacing his observations with the remark, "As in painting a picture, it is best to locate and define the shadows first and deal with the lights afterwards," he commences with the condition of things complained of by the American physicians: (1) That the profession is over-crowded: (2) "That there are many doctors, both *in esse* and *in posse*, and that this is due to too low a standard of education, and to the want of legal restrictions as to the qualifications which shall give a man the right to practice."

Statistics gathered in 1883 by the Illinois Board of Health showed that in the United States and Canada is one doctor of all sorts to every 600 of population. The proportion varies in different sections. For instance, in Colorado there are 29.3, in Indiana 25.2 to 10,000; while in New Mexico there are only 6.6; in South Carolina 9.2, in North Carolina 9.7 to 10,000. The greatest number of doctors are found in the States west of the Mississippi, where immigration has been greatest, the fewest in the Southern States east of the Mississippi. A fair proportion of doctors to the population is 1 to 1,000, as in England; the true proportion in the United States is 1 to 750.

A map of the United States, constructed to show the degrees of malarial prevalence, is given, to illustrate what the speaker wishes

to enforce as to the question, "Is the standard of education too low?"

"As compared with the North and East, much of this malarious region is a thinly settled country, an almost purely agricultural country, and not a rich country. I need hardly tell you that the physician who has received his chief clinical instruction in the office of his preceptor in Vermont or New Hampshire, supplemented by distant glimpses of a few cases in hospital in Boston or New York, will find himself at a loss at first in dealing with the emergencies of daily practice in Arkansas and Mississippi. He will be subjected to influences which at times are dangerous to one who is not acclimated, and which tend to produce depression of spirits, want of energy and bad health. He will not have free and constant access to scientific companionship, nor be stimulated by the influence of learned societies, and he cannot avail himself of the ordinary sources of amusement, education and rest, such as art galleries, the drama, libraries and museums, etc., which are found in the large cities. Moreover, the pecuniary reward which the practitioner in many of these places can reasonably hope for is comparatively small.

"Taking all these things into consideration, it is clear that if a man, after spending from six to eight years, and from one to two thousand pounds, in acquiring such a general and professional education as it is now considered that a skilled physician should possess, then settles in such a region with the prospect of an average income of from one hundred and fifty to two hundred pounds a year, it is not from pecuniary motives alone. There are such men in such places—men who are not only highly educated and skilled practitioners, but who are also original investigators and thinkers. It was within the limits of this malarial shadow that the foundation of modern gynecology was laid by Marion Sims, of abdominal surgery by McDowell, Battey and Gross, of an important part of the physiology of the nervous system by Campbell. Nevertheless, the rule holds good that malaria and science are antagonistic; the exceptions prove the rule.

"Nor can the inducements for highly educated physicians to settle in thinly settled localities be made stronger by any form of penal or restrictive legislation. Any attempt to fix a standard of requirements or qualifications for practice which shall be the same for such rural districts and for the large cities and manufacturing

towns must result in the adoption of what competent judges would consider so low a standard as to be ridiculous and useless. The demands are widely different, and corresponding differences exist in the sources of supply—that is, in the medical schools.

“There is a class of medical schools in the United States whose object is to give the minimum amount of instruction which will enable a man to commence the practice of medicine without much danger of making such serious and glaring blunders as will be readily detected by the public. There are other schools whose aim and object is to make fairly well trained practitioners, the general character of the instruction given in these being substantially the same as that given in your English hospital medical schools. The results of such a three years’ graded course of instruction in medicine as these schools furnish depend upon the character of the material upon which they work; that is to say, upon the general preliminary education possessed by the student at the time of his matriculation. This is evidently too often defective, and only a few schools have thus far ventured to establish any standard of preliminary examination which at all approaches in its demands that which is required in England. The proverb that it does not pay to give a five-thousand-dollar education to a five-dollar boy is clearly of American origin, and sums up a great deal of experience.

“You have nineteen portals of entrance to the profession, and have not found it easy to keep them all up to the standard. In America we have over eighty gates and a number of turn-stiles, and a good deal of the ground is uninclosed common. Many of our physicians are more or less dissatisfied with this state of things and with the results thereof, and every year in some States efforts are made to secure legislation which it is supposed will protect the interests of the profession, though those who advocate such legislation are usually prudent enough to allege as their only motive a desire for the protection of the public.

“Now, how does this free trade in medicine and the low standard of qualification, or no standard at all, required by law, affect practitioners as individuals? To answer this we must divide the profession into several classes. In the first place, in all our cities, great and small, there is a large class of physicians who are as well educated and as thoroughly competent to practice their art as can be found in the world. They have studied both at home and abroad,

have had extensive clinical training, are always supplied with the latest and best medical literature and the most improved instruments, and many of them are connected with hospitals and medical schools. Among them are found the majority of our writers and teachers, and the successful men are the survivors of a struggle in which there has been keen and incessant competition. These physicians, whose positions are fairly assured, and who, as a rule, have all the practice they desire, are not usually active leaders in movements to secure medical legislation, although they passively assent to such efforts, or at least do not oppose them; and their names may sometimes be found appended to memorials urging such legislation. They are clear-headed, shrewd, "practical" men, who know that their business interests are not specially injured by quacks and ignoramuses; rather the contrary, in fact, for they are called on to repair the damage done by the quack to people who have more money than brains; and they are not inclined to risk the fate of the Mexican donkey who died of '*congojas agemas*'—that is, 'of other people's troubles.'

"Then there is another large class of honest, hard-working practitioners, who rely more on what they call experience and common-sense than on book learning. Many of these have obtained assured positions of respectability and usefulness, and are comparatively indifferent to medical legislation, so far as their own interests are concerned. Others, however, who are not so successful, feel the competition of the local herb doctor or of the travelling quack more keenly, and have more decided views about the importance of diplomas. Among these are the young men who have not yet acquired local fame, and who are apt to become very indignant over the doings of some charlatan in the neighborhood, or some druggist who prescribes over his counter. These last are usually quite clear in their minds that the State ought to interfere and prevent injury to the health of the people.

"I have known two unsuccessful physicians who finally abandoned practice and who gave as a reason for their failure—one that "he did not know enough," and the other that "he had not the manners and tact which would inspire confidence in his patients"; but such frank-speaking men are rare.

"Thus far, as a rule, the efforts which have been made to secure legislation upon medical matters in America have come from the

profession itself, and have been chiefly urged and recommended by physicians. The general public, and even the educated public, has shown very little interest in the matter. It does not demand protection against ignorance, but intrusts the care of its health and the lives of those who are nearest and dearest to it to almost any one who announces himself as prepared to take charge of them. The number of those who profess to practice medicine in the United States and are not qualified to do so is undoubtedly large, though by no means so large as one might suppose after listening to the impassioned eloquence which is duly aired every year upon the subject. There are some advertising charlatans, and travelling quacks are occasionally to be met with, but they are rare."

"Dr. Billings believes that the most important of the first steps is a law like the law of England, requiring that every death in a community shall be registered, and that in such registration satisfactory evidence shall be given as to the cause of death, sufficient, at least, to show that it is not due to a crime. The death certificate is only valid coming from a duly qualified practitioner, therefore compelling the employment of none but legalized doctors."

* * * * *

"So far as the art of medicine is concerned, the demand has much, though by no means all, to do with regulating the quantity and quality of the supply, and there are few localities in the United States where the qualifications of the medical man are not fully up to the standard which the community is able to appreciate and is willing to pay for. In the natural order of things suffering and death are the remedies for ignorance, weakness and vice, and the means of preventing the transmission of these characteristics to offspring. These remedies, though effectual, are drastic, and we do our best to avoid them, but perhaps it is well that the penalties cannot be done away with altogether."

A review then follows of two of the States having a law regulating the practice of medicine, with remarks on the probable outcome of the laws, but the oldest law regulating the practice and its results are not given, as we expected.

* * * * *

"I come now to the consideration of the second part of my subject—namely, the direction or manner in which we have reason to hope that medicine will be developed in the United States, and the

kind of co-operation which you may reasonably expect to receive from the medical profession of that country. A marked feature of the present day, in medicine as in other things, is the tendency to specialization in study and in practice. But this very development of specialties, of increasing minuteness in the division of labor, increases the necessity for co-operation, and in fact tends to create what we may call the specialty of co-operation. Formerly a rifle, or a watch, was made by a single workman. No two instruments were exactly alike; each had its own individuality and was not interchangeable, and the cost of the whole was such as to put it beyond the reach of the multitude. Now the work on these things is greatly subdivided; one man makes only one small wheel, or spring, or pinion, and another another, each doing his work, according to a uniform pattern, rapidly, perfectly, and at comparatively small cost. But, in addition to the workmen who make the individual parts, it is now necessary to have one person specially skilled in making drawings and preparing patterns, another to assemble the completed parts, and a third to test the whole after it has been put together. As the centrifugal force increases the centripetal power must also increase.

"In one sense medicine, as we have it to-day, is the result of co-operation, not of deliberate, centrally planned and direct co-operation, but of natural selection from results produced by many men, often working at cross purposes, and, therefore, wasting much energy, but nevertheless working, though blindly, to a common end. And it is safe to predict that in the future much of the best work will be done in the same way, by individual effort inspired by the love of science, by personal ambition, etc. But the results obtained in this way come slowly, and some things that we want can hardly be obtained by individual effort, even if we were willing to wait; hence we must look to organization for help.

"This is an age of machinery, of exchanges, of corporations, for all these correspond to one and the same fundamental idea. Men make machines to do what the individual cannot do, and they make them not only of brass and iron, but of men, for such an obvious source of power to the man or men who can master the combination is not likely to be overlooked. One result of such organization is seen in our encyclopædic works on medicine, whether these be called dictionaries or hand-books; another is the great

medical journals; another in associations which seek to wield political influence; another in the comparatively recent attempt at collective investigation of disease. With these may be classed also the attempts of government departments to make scientific investigations, to collect libraries and museums, to do things which require long continuity of effort on a definite plan in order to produce the best results. And it is by the combination of all these, with the efforts of individual workers, that substantial advance and improvement are to be effected. In this broader view of co-operation it is interesting to consider those fields of labor to which comparatively few physicians can devote themselves because of want of time and opportunity, but whose proper working is, nevertheless, of the greatest importance to the practitioner.

"One of these is experimental laboratory work, and in this direction the prospect of valuable contributions from America is now exceedingly good. Some of the wisest of our most wealthy men have shown their appreciation of the responsibilities which riches entail on their possessors by seeking new channels through which to benefit their fellow-men. While the old and well-known methods of endowing hospitals and charitable institutions are not neglected, there is apparently an increasing tendency to endeavor to promote the advancement of knowledge, and especially of such knowledge as tends to the mitigation of suffering and the improvement of the race, to furnish means for the investigation of disease, to provide laboratories, and to endow medical schools, and thus place them beyond the reach of the temptations and difficulties which must always exist when such schools are dependent upon the fees of students, and are, therefore, practically commercial manufacturing establishments."—*New York Medical Journal*.

A SIGN OF DEATH.—M. Lessenne, at a meeting of the Société Médicale d'Amiens, pointed out the following simple and trustworthy sign of death. After pricking the skin with a needle the puncture remains open, just as when a piece of leather is pricked. On the living body, even if the blood does not come to the surface, as would happen if the person were hysterical, the pin-prick closes at once, and does not leave the slightest trace.—*Medical News*.

INTUBATION OF THE LARYNX.

It may not be out of place to again give the methods employed and this procedure as recommended by Dr. Ingalls :

The child should be wrapped in a sheet or shawl, which will pinion the arms, and then held upright in the nurse's lap ; an assistant holds the child's head. The gag is then introduced between the jaws, and opened as wide as need be, but not with great force. Dr. O'Dwyer says that it is unnecessary to use the gag with infants who have not back teeth. The physician, sitting in front of the patient, passes his left index finger over the base of the tongue and down behind the epiglottis, and with it guides the end of the tube into the glottis. The handle of the applicator should be held near the child's sternum until the end of the tube has reached the pharyngeal wall, when the handle is rapidly elevated, and the tube directed downward and forward along the index finger into the larynx. This will not be found difficult, but the infant's epiglottis is so small and flaccid, that the operator may not be able to recognize it, though he will have no difficulty in recognizing the larynx as a whole, which, except that it is slightly irregular, feels much like the end of one's little finger. The operator should not expect to detect the opening of the glottis, but must be guided by his anatomical knowledge to pass the tube into the centre of the larynx. Unless he is careful to carry the handle of his instrument high, and thus bring the tube as far forward towards the base of the tongue as possible, the tube will pass into the œsophagus. While it is desirable to accomplish this portion of the operation as quickly as possible, it should not be done with too great haste. Ten or twenty seconds, which is a long time for this portion of the operation, may be taken without danger. If the tube is not then introduced, it should be removed for a minute or two, to allow the child to breathe, and then the operation may be repeated ; but if the tube seems to be in the proper position, whether the operator is certain of it or not, the slide upon the handle should be crowded forward, so as to disengage the obturator, which is then withdrawn. Some cough will occur at once, and, if the tube has not been inserted into the larynx, or if it has not been passed down so that the rim rests on the vocal cords, it is likely to be expelled, and may be seen or felt

in the back part of the mouth. If the tube has been properly inserted, respiration will become easier, and after a few minutes the operator cuts one end of the silk thread, passes his finger behind the epiglottis, and holds the tube while the thread is withdrawn.—*Therapeutic Gazette.*

THE DESTRUCTIVE ENERGY OF THE TINCTURE OF THE CHLORIDE OF IRON ON THE TEETH.

An original paper of conspicuous merit, with the above title, was read before the Odontological Society of the State of New York, in June, by George W. Weld, MD., D.D.S.

As the researches of Dr. Weld in this direction possess many points worthy of the careful consideration of every physician, the salient features of the paper are presented to our readers.

Dr. Weld declares that the clinical operation shows that water increases the destructive energy of the tincture of the chloride of iron upon the enamel of the teeth more than any other fluid, and, as an illustration, he states that the effect of adding water to a simple solution of the chloride of iron, *devoid of free acid*, is to give basic salts of iron and the separation of free hydrochloric acid.

Dr. Weld showed conclusively that the tincture of the chloride of iron of officinal strength had but little, if any, effect upon the enamel structure of a tooth when immersed in the same for a period of twelve hours; but that, when immersed in a solution of the tincture and water, in proportion of one ounce of water to one drachm of the tincture, the enamel was materially injured in five minutes.

As an illustration of this phenomenon the doctor stated that when a piece of zinc is immersed in strong sulphuric acid (H_2SO_4) it has been observed that the acid has no effect upon the structure of the zinc, but if a little water be added to the acid, the zinc is at once destroyed; so that it is not entirely a matter of the strength of the fluids, so far as the quantity of iron or acid is concerned, but a matter of construction or solubility. The zinc in the strong sulphuric acid is protected in the same manner that the tooth which is immersed in the strong tincture of chloride of iron is protected, viz: the surface is blocked up with the basic salts of iron insoluble in alcohol, which

prevents chemical action. In the case of the zinc, it is the sulphate of zinc resulting from the first action, and insoluble in the concentrated acid, that forms a protecting coat over the surface of the zinc; the addition of water dissolves this protecting sulphate, and renders further chemical action possible. In the case of a tooth immersed in a strong solution of the tincture a similar action takes place, viz: the oxide of iron first formed protects the enamel from immediate chemical action on account of its compact adherence to its surface.

To illustrate still further, Dr. Weld called attention to two specimens of teeth on the card which had been immersed in the tincture and alcohol, and compared them with teeth which had been immersed with the tincture and water. Here it was observed that, although the alcoholic solution used contained the same quantity of the tincture and possessed apparently the same relative strength, and the teeth immersed for the same length of time, yet no injurious effect was produced on their lime salts. The reason is attributed to the fact that alcohol is a dehydrating compound, and the peroxide which is formed in the alcoholic solution is of the anhydrous form, and in character very compact, adhering closely to the surface of the tooth, thereby preventing immediate chemical action, while on the other hand, in the presence of water, the peroxide, which is precipitated in the hydrated form and is flocculent in character, does not so well adhere to the surface of the tooth, leaving the free hydrochloric acid in the solution to unite with the lime salts with greater facility.

There appears, then, to be two forms of peroxide of iron, viz: 1, The hydrated form ($\text{Fe}_2(\text{OH})_6$), found in the water solution, which is flocculent and non-protecting to the teeth; 2, The anhydrous form (Fe_2O_2), formed in the alcoholic solution, which is heavy and compact, and protects the surface of the teeth. The following formula will show how the hydrated peroxide is formed from the anhydrous peroxide ($\text{Fe}_2\text{O}_3 + 3\text{H}_2\text{O} = \text{Fe}_2(\text{OH})_6$).

Synonyms: Ferric hydroxide.

Hydrated sesquioxide of iron.

The teeth immersed in an ounce of the elixir of the pyrophosphate of iron, with one drachm of the tincture of the chloride added, for a period of twenty-four hours, produced apparently no chemical effect on the enamel; but with the same quantity of water and the tincture the enamel was completely destroyed. The elixirs are composed of

nearly twenty-five per cent. of alcohol, the presence of which, as observed in the strong solution of the tincture and in the alcoholic solution, affords a protection to the enamel of the teeth in the manner described. But it is to be noted that when a tooth is immersed in a solution of the tincture and simple syrup, in the above proportions, The enamel is but little affected. This is due to a mechanical reason. or a condition of fluidity of the solution, i. e., the presence of the sugar in solution coats the surface of the enamel, preventing the chemical affinity between the acid, or perchloride of iron, and the lime salts in the teeth.

The manner in which syrup modifies the destructive energy of the tincture on the enamel was beautifully illustrated by the effect produced on the specimens of teeth which had been immersed in three different weak solutions of phosphoric acid. Two of these were proprietary medicines and contained water, and the effect was to injure the enamel of a tooth in one hour, while the third, a syrup solution (each fluid drachm containing two grains of free phosphoric acid), produced but little, if any, injurious effect on the enamel in twenty-four hours.

Equally interesting was the effect produced on the enamel of teeth which had been immersed in a solution of the tincture and the weak alkaline waters (notably Vichy).

When a drachm of the tincture is added to an ounce of the Vichy water, a slight effervescence occurs, indicating that the bicarbonate of soda contained in the water has neutralized a part of the free acid contained in the tincture; in consequence, when a tooth is immersed in such a solution, the destructive energy of the iron is, to a great extent, modified. Unless the specific nature of the tincture of the chloride of iron is materially affected (and the peculiar odor of the tincture remains), there seems to be no reason why this preparation of iron, at least in all cases of anæmia, should not be administered in combination with Vichy water.

There are then, three menstrua which may be employed to modify the destructive energy of the tincture of the chloride of iron on the enamel of the human teeth. The first is alcohol in some form. The second is Vichy water, which neutralizes to a slight extent the free acid contained in the iron. And the third is some form of an elixir or simple syrup.-- *Medical Record*.

THE DETECTION OF CHRONIC BRIGHT'S DISEASE.

By CHARLES W. DULLES, M.D., Surgeon to Out-patients in the Hospital of the University of Pennsylvania, and in the Presbyterian Hospital in Philadelphia.

In January, 1884, a gentleman came to consult me on account of a sense of constriction and oppression which he felt in the lower zone of the thorax, and some dyspnœa, which affected him chiefly when he walked in the morning to the car which conveyed him to the place where he exercised his duties. He was a man with important responsibilities, past middle life, rather stout, of medium height, of excellent habits, but whose duties interfered with his midday meal and required him to sit for five or six hours every day in a crowded and ill-ventilated room. The point in regard to his case to which I wish to call attention does not require further description of his condition and symptoms, except to say that he had never known of having any œdema of the feet or other cause to suspect his kidneys. On making a physical examination of his thoracic and abdominal organs, I found no sign of any disorder except a loud, ringing or booming second sound of the heart, which my experience has led me to regard as of peculiar significance. This sound is simulated by that which is heard when one presses the palm of his hand pretty firmly against his own ear, and at the same time taps the back of his head with his forefinger. This sound, heard over the heart, has seemed to me to be characteristic of a moderate degree of essential hypertrophy of this organ. Hearing it in the case I am describing, I thought it important to examine the patient's urine. This I did most carefully and thoroughly. I found it normal in amount, color, clearness, sediment and odor. Its reaction was strongly acid, its specific gravity 1.020; the urates were normal; uric acid was in excess; the phosphates were normal; no albumen was found, and no sugar. By a microscopical examination, after forty-eight hours settling, I found various forms of uric acid crystals, a few small plugs of small white cells, and a *very few delicate hyaline casts*. I gave my patient a cautiously worded diagnosis, advising careful living, and instituted treatment which relieved his symptoms. Becoming

deeply concerned about himself, however, he now, with full approbation, consulted the gentleman who had before been his medical adviser. The latter examined him, and said that his heart was perfectly healthy, and that an examination of his urine showed it to be normal. Not quite reassured by this, the gentleman consulted three other eminent medical men; one of whom said he had a fatty heart, while two of them said his heart was sound. One of the latter, who also said that his kidneys were perfectly healthy, had him under treatment for a long time, giving him chiefly Fowler's solution of nitroglycerine. A prolonged absence from work, with travel and carefully regulated diet, contributed to making the patient feel decidedly improved. After the lapse of two years and a half, he came to me again on July 3, 1886, asking me to examine his urine, so that he might select an appropriate medicinal spring, at which he should spend his summer vacation.

The circumstances which I have narrated made this visit one of peculiar interest to me, and the examination of the patient's urine equally interesting. Again I found the amount, color, clearness and sediment normal, while the odor was not pleasant. The reaction was acid, and the specific gravity 1,024. The urates were normal, the phosphates were doubled. On testing by boiling the filtered urine, and by applying the nitric acid test in the ingenious manner suggested by Dr. Thomas S. K. Morton, in the *Medical News*, May 8, 1886, I failed to discover any evidence of the presence of albumen. But on testing it with the potassio-mercuric iodide and citric acid paper of Dr. Oliver, of Harrogate, England (with some papers which I received directly from him), I did find a distinct trace of albumen. I found no sugar in the urine, and no other abnormality except a slight excess of coloring matters. After twenty-four hours, and again after forty-eight hours, I made a microscopical examination, and found hyaline tube casts, one young epithelium cell, various forms of uric acid, oxalate of calcium crystals, and several varieties of microorganisms.

Fig. 1 represents what was found under a single cover-glass, although all these objects were not seen in any one field of the microscope: Hyaline tube casts—one so-called waxy casts; uric acid in various forms; young epithelium cells; oxalate of calcium; micrococci and bacilli.

It is seen, then, that what I discovered at this last examination

corresponds with what I found two years and a half ago; and I think it corroborates the diagnosis I then made of chronic Bright's disease, associated with a moderate degree of essential hypertrophy of the heart, or *vice versa*.

The interest of this case hinges upon the diagnosis and the ground upon which it rested. As to the heart, the diagnosis rested upon the peculiar sound described above, which has never, I think, deceived me. But the diagnosis was, in my opinion, supported by what I found in the urine, and the inference which it warranted. The discovery of the tube casts, which escaped another, and perhaps several examiners, may have been due to the method of examination which I employ, and it is chiefly to call attention to this that the account of the present case is published.

In the first case I am strongly impressed with the advantage of allowing the sedimentation of a specimen to take place in a straight glass, and not in a conical one, as is recommended in most of the books. In the latter, I think, one may easily miss a few tube casts, because they are not heavy enough to resist the attraction and friction of the sides of a conical glass, and so never find their way to the bottom. For this purpose a test-tube with a foot, I think, is the best receptacle.

Another point to which I desire to call attention is the plan I have devised for catching a specimen of sediment for microscopical examination when the deposit is very slight. After leaving the urine to settle in a test-tube with a foot for twenty-four hours, under a paper cover pressed down upon and around the top of the tube, I take a long, pointed glass tube, close the upper end firmly with my finger, and, pushing the point through the centre of the paper cover of the test-tube, thrust it steadily to the bottom of the urine. I now remove my finger, and the bottom layer of the urine, containing the deposit of twenty-four hours, flows up into the long tube. When it has risen to the level of the urine in the test-tube, I carefully twist a piece of soft paper over the upper end of the second tube, or stuff a small bit of absorbent cotton into it, to keep out all foreign substances, and allow the apparatus to stand undisturbed for twenty-four hours or longer, during which the deposit contained in the column of sediment falls to the bottom of the smaller tube. At the end of this time I close the upper end of the smaller tube firmly with a

finger, withdraw it carefully from the test-tube, and then allow the two or three drops nearest its point to run out on a slide, in two or three places, cover them properly with thin glass, and put them under the microscope.

In this way, I believe, one may obtain a most typical specimen of the deposit, and I think the adoption of this method might prevent such a conflict of opinion as took place in the case I have described, or such an occurrence as is mentioned by Dr. Roberts in his work on "Urinary and Renal Diseases," fourth edition, p. 439, in which he discovered hyaline casts in a urine which had been repeatedly examined with negative results by two medical men well accustomed to such examinations.

It is in the cases in which it is difficult to determine the existence of chronic Bright's disease that it is often most important to be aware of its presence. Many obscure symptoms become intelligible when this factor is recognized and taken into account, and it is often possible to put a patient on his guard against dangers which would not be considerable if the kidneys were in perfect condition. I am aware that there is often unnecessary alarm felt both by the patient and by his physician upon the discovery of a chronic disorder of the kidneys; and I would not like to contribute to any increase of the already exaggerated dread of Bright's disease. But if such a condition is present, it cannot be doubted that it would be for the advantage of both in most cases to have it known; and so I hope that the simple suggestion which I here make may prove of value.—*Medical News*.

INTEMPERANCE AND INSANITY IN THE NEGRO.—* * * In a word, it is impossible to estimate the evils that intemperance has brought upon the negro, and it is an incontrovertible fact, sustained by the irresistible proofs of daily observations, that it has been one of his greatest curses. All observers agree that intemperance is intimately connected with, and is one of the main exciting causes of, in all races, and this is especially true of the negro, and, as its evil effects are handed down to succeeding generations, we can but expect his progenitors to be heirs to alcoholism, idiocy or hereditary insanity. The negro is naturally intemperate, and, unrestrained, indulges every appetite too freely, whether for food, drink, tobacco or sensual pleasures, and sometimes to such an extent as to appear more of a brute than human. The gratification of these appetites has enervated him, and, from leading an active and useful life, many have become indolent, lazy, trifling vagabonds, a curse to the country and a burden to the State.—*New York Medical Journal*.

TREATMENT OF EPILEPSY.

Wildermuth, in the course of a long career at the head of an institution devoted to epileptics, has had occasion to make trial of all remedies of reputed value in epilepsy, and has finally concluded that the treatment by bromides is indicated in the majority of cases.

In combating epilepsy, or, more properly speaking, the epileptic state, Wildermuth exhibits the bromide of potassium in the initial dose of thirty grains in children and seventy-five grains in adults. The dose is gradually augmented to one hundred and twenty grains, and, very rarely, to one hundred and fifty grains.

The bromide is given in water or milk, and its exhibition is followed by physical exercise, in order to decrease the likelihood of resultant gastralgia.

Iodides and chlorides are badly borne.

When medication is suspended, it is advised that the doses be gradually and slowly decreased.

The treatment may produce disagreeable consequences, which should be met more than half-way. The dental and gingival alterations are prevented by gargles of potassium permanganate, and cutaneous eruptions by the daily administration of Fowler's solution, lukewarm baths, and inunctions of Hebra's ointment. With this ointment, also, the eruptions of bromism are treated when they appear, and when they are very rebellious, he does not hesitate to use the sharp curette.

The circulatory troubles incident to the bromine treatment necessitate cessation of the medicament, administration of coffee, shower-baths to the spine, and massage of the limbs.

When patients are very susceptible to the pure bromide of potassium, the daily ingestion of a wine-bottle or less of Erlenmayer's "bromized water" is to be preferred. The formula of this is as follows :

Potassium bromide,	
Sodium bromide.....	ââ gr. lx.
Ammonium bromide.....	gr. xxx.
Liquor ammonia.....	gt. j.
Carbonated water.....	f 3 xx.

In recent cases and in adolescents Wildermuth employs a somewhat smaller dose of the bromides, and adds one-tenth to one-thirty-third of a grain of atropine sulphate. In desperate cases he has used the osmate of potassium, in doses of from one-seventieth of a grain to one-fourth of a grain, together with zinc oxide, according to the method of Herp.

He has seen no benefit from the use of curare or absinthe. The continuous current is chiefly of advantage in combating choreiform manifestations; the anode applied to the sternum, and the cathode to the spine. In subduing the psychical excitement, hydrotherapeutic methods have proven most useful; especially the moist pack and massage, gave favorable results in cases in which somnolence was very pronounced.

The dietetic regimen consists in the moderate use of meats, avoidance of spices, sobriety and abstinence from tea and coffee.

The treatment of the access appears useless when the crises succeed each other rapidly. If they are more rare, he tries the wet pack, ice to the head, and a double or triple dose of bromide. Chloroform is discarded as unsafe, and chloral is reserved to combat the excitement in the intervals of the access. In cases where arrest of the heart is threatened, he commends the subcutaneous injection, in the thoracic region, of camphorated oil, up to the maximum dose of two fluidounces.—*Gazette Hebdomadaire de Médecine et de Chirurgie—Medical News.*

KRULL'S METHOD OF TREATING CATARRHAL JAUNDICE.—M. R. Longuet gives an account of this treatment and of Löwenthal's confirmation of its efficacy. It seems that Krull published an account of his method in 1877, but that it excited little attention until Löwenthal took it up. It consists simply in the administration of enemata of cold water; the first injection, of one or two quarts, at a temperature of 59° F., is thrown in gently and retained as long as possible; on the succeeding days an enema is given every morning, the temperature being gradually increased to 71.6° F., which is not exceeded. The cure is generally accomplished by the fourth day, and in no instance have more than seven injections been found necessary. No failures have been mentioned, although several of the cases were of long standing and had resisted the most varied treatment, including the use of that *ultima ratio* of the Germans, Carlsbad water. No medicine is allowed to be taken, and the diet is restricted to vegetables. Löwenthal who used injections somewhat colder than those mentioned, tried the method in forty-one cases, and he absolutely confirms Krull's report of its efficiency.—*New York Medical Journal.*

THE LATE DR. ELLSWORTH ELIOT HUNT.

To the Editor of the New York Medical Journal:

SIR:—Please announce to the profession the death of Dr. Hunt, son of Dr. Ezra M. Hunt, of Metuchen, more recently of Trenton, N. J. The deceased was born in Metuchen, May 15, 1855, and died August 17, 1886, at Pensacola, Florida, of phthisis. He was educated at Phillips Andover Academy and Princeton College, from which he was graduated in 1875, taking the second honor and delivering the Latin salutatory. During his sophomore year he took the Stenike prize in languages, being the first to receive it. He was also accounted as good a mathematician as the class contained, but he did not contend for the prize in that branch. In his senior year, as the result of a written examination, he secured the fellowship in experimental sciences, which entitled him to a year of post-graduate study at Princeton or abroad. He chose to remain at Princeton, and there studied during the year, distinguishing himself in physics. He was graduated in medicine from the College of Physicians and Surgeons, of New York, with the third honor, in 1878. During his course there he was clinical assistant to Dr. Alonzo Clark. Having finished the usual term of service on the house staff of the Roosevelt Hospital, he went to Vienna, where he studied surgical specialties till he seemed to have rounded his course of study to the utmost. In the autumn of 1882 Dr. Hunt opened an office in Lexington Avenue, New York. After a little more than a half year from the beginning of his practice he was seized with acute tuberculosis. He returned to his father's home and spent his three remaining years seeking health at home and in Pensacola, Florida. He was buried in Metuchen August 21st.

He inherited a disposition to tuberculosis through two generations, and to those who saw him only casually he might, from his pale face, slender figure and slight stoop, have seemed not to be strong. To those who saw him month after month accomplishing huge tasks, noted his quick, elastic step, his tireless energy, his never-failing appetite, buoyant spirits and hopefulness, he must have seemed blessed with the unmistakable signs of health. He regarded himself as perfectly healthy till he caught the first crimson stain on his handkerchief.

The preceding record tells its own story. To say that a student in one of Princeton's classes has taken a prize in languages, has stood among the first in mathematics, and taken a fellowship in sciences, is to designate an intellect both brilliant and broad, to point to a man without peer in a thousand of his fellows. His breadth in scholarship was quite equaled by his breadth in general information. He seemed never to have forgotten a college study. He was without vices; he was a devoted son and brother. He selected few intimate friends, and to them alone did he show his true nature. The intimate associates and friends of Dr. Hunt desire to put before the profession a brief record of this brilliant and gifted student, this clean, cultivated, intellectual, Christian gentleman, and allow them to lament with us the loss we have sustained.

Yours,

W. P. NORTHRUP.


A CASE OF RE-INJECTION OF BLOOD DURING AMPUTATION AT THE HIP-JOINT, WITH RAPID RECOVERY.—By A. G. Miller, M.D., Edinburgh. In a case of strumous disease affecting both hips, the left knee and the left elbow, with a large abscess connected with the left hip, the patient being in very feeble condition, amputation at the latter joint became necessary. The limb having been exsanguinated to the middle of the thigh, and a powerful elastic tourniquet applied at the groin, a rapid circular cut was made right down to the bone in the upper part of the thigh, the femur sawn through, the femoral artery and some smaller vessels tied, and the tourniquet removed; some hæmorrhage still occurring from a few small vessels, they were also ligatured. All the blood which escaped, both from the femoral artery and the smaller vessels, amounting to eleven ounces, was caught in a vessel containing a solution of phosphate of soda and re-injected into the deep femoral vein. By an incision on the outer side of the thigh the head of the femur was then dissected out. The wound was dressed antiseptically. The patient suffered no shock whatever, nor depression of temperature after the operation. For the first few days he was flushed and had a fuller pulse than before the operation, but he had no rise of temperature. The weakness and the anæmia of the patient, together with the increased vascularity of the parts due to the disease, rendered it very likely that he would not have survived the operation, had not the greater part of the blood lost been re-injected—the fact being that from the exsanguification of the leg, together with the reinfusion, there was probably an ultimate gain of blood after the operation.—*Edinburgh Medical Journal—Annals of Surgery.*

EDITORIAL.

THE NORTH CAROLINA MEDICAL JOURNAL.

A MONTHLY JOURNAL OF MEDICINE AND SURGERY, PUBLISHED IN
WILMINGTON, N. C.

THOMAS F. WOOD, M. D., Wilmington, N. C.,	} Editors.
GEO. GILLETT THOMAS, M. D., " "	

 *Original communications are solicited from all parts of the country, and especially from the medical profession of THE CAROLINAS. Articles requiring illustrations can be promptly supplied by previous arrangement with the Editors. Any subscriber can have a specimen number sent free of cost to a friend whose attention he desires to call to the JOURNAL, by sending the address to this office. Prompt remittances from subscribers are absolutely necessary to enable us to maintain our work with vigor and acceptability. All remittances must be made payable to THOMAS F. WOOD, M. D., P. O. Drawer 791, Wilmington, N. C.*

THE MESSAGE OF PRESIDENT GRAHAM AND ITS SUGGESTIONS.

We have sent out to our readers the full text of the President's Message to the State Society at New Berne, and we would ask that special attention should be given to his recommendations. If every physician in the State, outside of the membership of the Society and those who are on its rolls, but do not participate in its work, would read carefully his suggestions concerning the necessity for harmonious organization for effecting any great improvement in the medical profession in the State, it will serve as an incentive to both of the classes of physicians whom we have mentioned above to join with the now active workers in the labors of their Society. It is useless to repeat again the arguments for the reasonableness of the suggestion. For to the Medical Society is due the credit of the

origin and growth of the Board of Medical Examiners and the benefits which the law empowering this Board to act is bringing to regular practitioners in the State. The fostering care of the Society for the Board of Health has added a valuable element in the general police department of the State—and, although an outcome of the Society, and elected for the use of the State government, and therefore no longer a servant of its originators, it comes yearly back to report its progress and receive from its promoters such suggestions as may be deemed wise for its further advancement and usefulness. Protection of any sort must be the result of united action where the interests of so many are involved and the end to be attained a common one—and it will only be at the present possible for the profession in the State to find a rallying nucleus in the organization which we represent, and whose record has been so satisfying. If the profession of the State is ever to reach the place in general esteem which its intrinsic worth entitles it to hold, it must set aside the inaction or modesty which have kept down the light which should have shone out from our midst. We can only let our deeds be known by telling them. There is no lack of ability to recount the experiences and deductions which intelligent physicians are constantly gathering in our State, but there is lack of habit, both of making bed-side record of disease and of publishing well-digested summaries of these clinical studies.

The JOURNAL will always welcome these matters, assured that they will be of interest to our readers, and of statistical value. We do not think it necessary for physicians to wait always for unique cases of sickness or exceptional cases of surgery before offering themselves as contributors to the literature of the profession. For many of them will find that a short experience in careful note-making at the bed-side will lead them surely to such a collection of material that the demand for publishing them will be almost positive. It will be germane to the idea upon which we base our claims for the excellence of the physicians in North Carolina to recall the declaration of Marshall Hall, after he had made a visit to the United States and travelled as far South as Charleston investigating men and manners, as well as pursuing vigorously his special studies in the physiology of the nervous system. He said on his return to England if he was seriously sick, or injured, he would place as much confidence for relief in the country doctors he met

in America, self-reliant and self-sufficient in great emergencies, as in any man he had ever seen in the great center of learning.

Some of the country doctors were in North Carolina, and these same characteristics still mark them; but their good works are hidden away under the shadow of their modesty. Let us hear from these gentlemen. We would enjoin on those not already of us, to visit the next annual meeting of the Society and investigate its work, assured that they will be glad, upon examination, to partake of the labors and benefits of the organization, and let us all seek to enlarge our usefulness by these annual consultations, and more frequent resort to the publication of our experience. There are other points in this Message to which we shall return at a later day.

AILANTUS TREE AND ITS ENEMIES.

The newspapers and sanitary and medical journals have begun a crusade on the ailantus tree, some claiming it to be a deadly poison. This tree has had its ups and downs since it was introduced into this country as a desirable shade-tree under the name of "trees of Heaven." Long experience with it has caused the public to pronounce against it as a desirable shade-tree, where elms, oaks, limes, pride of China, and other trees will grow as easily. It is so readily propagated by seed and off-shoots that it soon runs riot in the streets, its roots penetrating wells and uplifting side-walks. Although the trees are not perfectly diæcious, the pistillate and staminate flowers are borne on different trees. The staminate flowers exhale an unpleasant odor in sultry weather, but no part of the tree is poisonous, and the worst that can be said of the odor of the flowers is that it is offensive to the nostrils of most persons. The tree is of rapid growth, is a good drainer of the soil, and its leaves exhale oxygen with as true a function as the more desirable oaks and elms. Therefore, in condemning the ailantus, let it not be on the unproven ground of poisonous properties, but because in comparison with other trees it is not so desirable.

In one point of view, not connected with hygiene particularly, it is a most valuable tree. It will grow in a very poor soil. In treeless, barren districts this tree can be utilized by planting on the borders of enclosed areas, to afford protection for more desirable trees within. Furthermore, the ailantus is free from insects, and furnishes very good cabinet wood.

REVIEWS AND BOOK NOTICES.

A SYSTEM OF PRACTICAL MEDICINE. By American Authors. Edited by WM. PEPPER, LL.D., M.D., assisted by LOUIS STARR, M.D. Vol. V. Diseases of the Nervine System. Lea Brothers & Co., Philadelphia, 1886.

The editor, with commendable pride, offers to the reader a short valedictory with this, the final volume of his splendid work. The work was set on foot in 1881, and the first volume issued in January, 1885. The number of articles is 185, written by 99 authors, with the indexes, covering nearly 5,600 pages.

The feeling of proud satisfaction with which the American profession sees this, its representative system of practical medicine issued to the medical world, is fully justified by the superior character of the work. The entire caste of the system is in keeping with the best thoughts of the leaders and followers of our home school of medicine, and the combination of the scientific study of disease and the practical application of exact and experimental knowledge to the treatment of human maladies makes every one of us share the pride which has welcomed Dr. Pepper's labors. More compact than Zeimssen, and sheared of the prolixity that wearies the readers after the German school, the contributors of all the articles have gleaned these same fields for all that was valuable. Of the same size as Reynolds, representing the English practice—it is better, both as it stands in the place of a new edition to that work and a supplemented in its superiority, so far as we are concerned, by the fact that it is the outcome of American brains, and is marked throughout by much of the sturdy independence of thought and originality that is a national characteristic. Yet nowhere is there lack of study of the most advanced views of the day; nor can this volume fail to stand as a text-book of authority for years to come.

The work opens with a chapter by Dr. E. C. Seguin on "The General Semieology of Diseases of the Nervous System; Data of Diagnoses," and is followed by an article on "The Localization of Lesions in the Nervous System," by the same author. The former of these articles the authors divide into Studies of Psychic, Sensory,

Motory and Trophic Symptoms, with wood-cut illustrations, and sums up his conclusions by "The Principles of Diagnosis," from the foregoing data.

In his exposition of "The Localization of Lesions in the Nervous System," he prefers to present "the association of symptoms with definite lesions, with occasional anatomical and physiological explanations," being in fact a concise and classified series of diagnostic propositions, because the length allotted his chapters in a system of practice will not allow him to detail all the research, anatomical and physiological, which has been made to prove the organic independence and function of the nervous system, or to classify the autopsical work proving localization.

The article is subdivided into five parts, relating to localizations of lesions of the (1) peripheral nervous system; (2) the spinal cord; (3) medulla oblongata; (4) the encephalon; and (5) cranio-cerebral topography. The whole article is well illustrated.

Dr. Charles F. Folsom contributes a notable article on "Mental Diseases," which includes the whole general study of insanity, and is the production of a master.

Dr. Charles K. Mills has added a valuable series of articles to this on "Hysteria," "Hystero-Epilepsy," "Catalepsy," "Ecstasy," and later on, "Progressive Unilateral Facial Atrophy," and "Tumors of the Brain and its Envelopes."

Dr. H. C. Wood has done the reading and thinking portion of the profession a service by his exposition of "Neurasthenia," which he says is not a distinct disease, but a condition of the body, so constantly is it associated with various chronic morbid states. The article is short, concise and very valuable, to which he has added another article on "Acute Affections Produced by Exposure to Heat," which is worthy of its author.

"Sleep and its Disorders," including the Study of the Phenomena of Dreams, Night Terrors, Somnambulism and Hypnotism, Insomnia, Coma, Sleeping Dropsy, Lethargy and Apparent Death, is the chapter with a full account of the matter under investigation, by Dr. Henry A. Lyman.

Dr. Wharton Sinkler writes up "Headache," "Tremor," "Chorea," and "Athetosis." His article on chorea is the most important of these, and is a well studied chapter on this disease, which is so interesting. His personal knowledge of the malady, derived from his cases in

the Infirmary for Nervous Diseases, makes his opinions the more reliable, and his acquaintance and free use of recognized authorities embellish the whole chapter.

The most interesting chapter in the book to us is the one on "Alcoholism," by Dr. James C. Wilson. This disease, in its acute and chronic forms, is so unfortunately frequent and such a plague to the physician, that this explication of the matter will be of immediate and constant value. He has divided alcoholism into acute, chronic and hereditary, and dipsomaniac: (1) Ordinary or typical forms; (2) irregular; (3) acute poisoning by alcohol, and lethal doses. The chronic form includes visceral derangements, derangements of the nervous system and psychical disorderings.

"Rum," says the author, "is at once the refuge and snare of want, destitution and sorrow," and is the great cause of crime among the ignorant and vicious. Therefore moral and social influences, example, occupation and the lack of it, are to be considered among the causes of the disease under discussion. "The occasional moderate use of alcohol in the form of wine with food," says Dr. Wilson, "and as a source of social pleasure, is not fraught with the moral or physical evil attributed to it by many earnest and sincere persons." Its temperate use in this form, and under proper circumstances, *with food*, in the majority of individuals, is attended with benefit. Of the unfavorable conditions which set up a predisposition to alcoholism, our author ranks *heredity* first.

Then he puts in order various forms of disease, bodily weakness and chronic morbid states, irregularity of sexual functions, the abuse of tobacco, depressing mental influences and habit, as the more prominent of the causes that lead to inordinate use of alcohol. In discussing habit, as a cause, among active business men, its importance cannot be overestimated.

Fothergill, in speaking of the habit of taking alcoholic stimulants at a fixed hour every day, quoting Dr. Samuel Wilks, says: "The man or woman who has an acute consciousness of the hour of eleven is a being both physically and morally lost."

Th various forms of alcoholic beverages are rapidly reviewed and their comparative value for good or evil estimated, after which the physiological action of alcohol is taken up, which involves the discussion of its therapeutic value.

The interesting and most important portion of this contribution,

however, is the pathology of alcoholism and its treatment. It is too extended for review in our space, but to those of our readers who have so often appealed with satisfying responses to the works of Anstie on this subject, Dr. Wilson's contribution in this System will be most welcome, as it is replete with all the knowledge which Anstie possessed, and brought with precision down to the present day in its details.

To this article he has added two others, "The Opium Habit and Kindred Affections," and "Chronic Lead Poisoning."

Dr. Allen McL. Hamilton contributes "Local Convulsive Disorder" and "Epilepsy;" and "Tetanus" is from the pen of Dr. P. S. Conner. But we must not attempt further to set forth the contents of this volume. The five volumes will long be the source of information to which confident appeal can be addressed, and it behooves every practitioner to possess himself of them, even at the expense of some personal sacrifice.

REFERENCE HAND-BOOK OF THE MEDICAL SCIENCES, etc. Edited by ALBERT H. BUCK, M.D., etc.

The third volume of this great work fully sustains the reputation which the initial volume promised. Everywhere we see good and thorough work exhibited, and the latest theories and practice are treated with the same judicious care as the better substantiated knowledge. This volume begins with Face and ends with Hysterotomy. It therefore includes, alphabetically, many such important subjects as Fever; Field Surgeons, Duties of; Fœtus, Development of; Fractures; Fungi, Edible and Poisonous; Gonorrhœa; Gout; Habitations, General Principles of House Plumbing; Heart; Hernia; Histological Technique; Hospitals, Construction and Management of; Hygiene, etc. These are the captions of a few of the most elaborate sections, for of course the notice of any but such selected heading could not be given in the limits of our space.

Under the head of Fever, contributions are made by different writers on the different species; typhoid fever is specially illustrated by a lithograph of intestinal lesions taken from Cruveilhier. Duties of Field Surgeons, contributed by Dr. Joseph R. Smith, Surgeon U. S. A., is most elaborate, embracing every topic from the organization of a medical corps to the details of the transportation of the sick and wounded by water and land.

The article on Fungi is by the well-known Professor of *Materia Medica* and Therapeutics in the Charleston College, Dr. F. Peyre Porcher. The subject is an exceedingly difficult one, but the author has succeeded in giving a well digested and well arranged shape to it, so that it can be considered standard text for the general student of mycology for some time to come. The article is well illustrated by wood-cuts, most of them from drawings by the author, and two pages of lithographs. These plates, one of edible and the other of poisonous fungi, are reproduced from the drawings of the Rev. Charles J. Curtis, of North Carolina. These drawings were intended to illustrate a work on "Edible Fungi," prepared, but never published, by the Rev. Dr. Moses A. Curtis, of Hillsborough, and we are pleased to see that so much of the work has been printed in this way, as to give some idea of its scope and conception. Dr. Porcher acknowledges freely his indebtedness to Dr. Curtis' work.

The article on the Radical Cure of Reducible Hernia is from the gitted pen of Prof. Middleton Michel, M.D., of the Charleston Medical College. He thoroughly traverses the whole subject as a practised surgeon, and gives his opinion that the direct method is simplest, most orthodox and rational of all the methods adopted. "To cut down upon the trouble ; to meet the difficulty as we would any other deformity resulting from the arrest of development, in the evolution of a natural outlet or opening of the body ; to treat the malformation as we would a hare-lip or a cleft-palate ; to emarginate the borders of an abnormal cleft in the parts ; to co-arcuate their edges and restore the integrity of a normal opening, should long ago, it would seem, have suggested itself as the best, as it must prove to be the only veritable, means of finally curing this vice of conformation. It is with something like national pride, therefore, that we announce that to Professors Nott and Gross belongs the credit of this direct method."

We have only desired to show our readers from time to time what treasures are contained in the "Reference Hand-Book," confessing our inability to do justice to the volumes. The work, we believe, is meeting with great success, and surely deserves it.

DRUGS AND MEDICINES OF NORTH AMERICA. By J. U. Lloyd and C. G. Lloyd. Cincinnati, 1886. Vol. II., No. 1.

The first volume completed is a credit to American Medicine,

making a very handsome work typographically, and containing all that can be possibly said about (chiefly) the Ranunculaceæ. Most of the work was original microscopic and chemical research, new to the medical profession. This, the beginning of the new volume, is conducted upon the same plan, giving the geographical distribution of the plants considered. The Magnoliaceæ, beginning with *Liriodendron tulipifera* (Tulip tree, Poplar) is well illustrated and described. After reviewing, all that we know of the therapeutics of this tree is, that during the Confederacy a fluid extract of Liriodendron, Cornus Florida and Salix nigra was used successfully as a substitute for quinine. An alkaloid named *tulipiferine* has been separated by Lloyd, and samples of the hydrochlorate of tulipiferine were placed at the disposal of Prof. Roberts Bartholow, of Jefferson Medical College for experiment. He believes that the empirical employment of tulip-tree (poplar) by Dr. Rush is accounted for by the fact that was discovered by experiments on frogs, that it is a cardiac tonic. Only a small proportion of non-crystalline alkaloid was obtained from quantities of the resin called by Emmett *liriodendrin*, and Lloyd thinks it is possible this alkaloid may prove identical with one already known.

The Magnolias (*M. glauca*, sweet bay; *M. acuminata*, cucumber tree; and *M. grandiflora*) are described, and, although in the present state of our knowledge, little use is made of the magnolias further than in domestic practice to use the root of sweet-bay for poultices, they form an interesting family of trees. The items of history in connection with them (and not about them alone, but all through this work), which are contained in the rich foot-notes, give almost a complete history of American botany and botanists; half a dozen good libraries might be consulted in vain without finding a small fraction of what is given here so appropriately.

One small error in relation to the northern limit of the *Magnolia grandiflora* (although from the high authority of Mr. Mohr, who puts it at 32,30°) we take the privilege to correct, as it was known by William Bartram, and considered of importance enough to be mentioned by him. (Bartram's Travels, 1792, p. 470.) "* * * Crossed Little river at the boundary; which is on the line that separates North and South Carolina: in an old field, on the banks of this river, a little distance from the public house, stands a single tree of the magnolia grandiflora, which is said to be the most

northern settlement of that tree." The verity of Bartram's information is still attested, and this tree stands about 33.50°.

Now is the time to secure this publication, while it is current at \$1.00 a year. The first volume can be obtained from the publishers, bound in green cloth, at \$3.50, or unbound at \$1.00.

THE TIME OF THE GREATEST PREVALENCE OF EACH DISEASE.

* * * A Statistical Report, Based on Weekly Reports of Diseases in Michigan During the Year 1884 and Previous Years.

This pamphlet is a reprint from the Report of 1885 of the Michigan Board of Health. It is a study of statistics collected and arranged by the able secretary of that Board, Dr. Henry B. Baker, whose energies have been turned in this direction for many years. This work is not only an example of the numerical method as applied to the solution of weather and social influences on the cause of disease, but an essay which gives true value to the methods of the collection of statistics. Dr. Baker has put the entire profession and sanitary students in general under obligation to him for his untiring work. Even though the diagramatic representation of disease may not agree with that of other States—although a casual glance of the diagrams would suggest that there is very little difference between Michigan and North Carolina—the plans and methods of graphic representation ought to be studied by all engaged in the study of the statistics of disease.

If any other State is doing a small fraction of such work as the Michigan Board, we are not aware of it. It need not discourage other States who are doing the merest elementary work, but should stimulate them to strive with earnestness. We recommend the study of this pamphlet to all who ought to be interested.

THE PHYSICIAN'S LEISURE LIBRARY. Published by George S. Davis, Detroit. Whole Series \$2.50. Single Copies 25 cents. Michigan.

This series of valuable dissertations consists of twelve volumes, written by authors of established reputation.

The library will consist of the following numbers: Inhalers, Inhalations and Inhalants, by Beverly Robinson, M.D.; The Use of Electricity in the Removal of Superfluous Hairs and the Treatment of Various Facial Blemishes, by George Henry Fox, M.D.; New

Medications, by Dujardin Beaumetz, M.D., translated by E. P. Hurd, M.D. ; The Modern Treatment of Ear Diseases, by Samuel Sexton, M.D. ; Spinal Irritation, by William A. Hammond, M.D. ; The Modern Treatment of Eczema, by H. G. Piffard, M.D. ; Antiseptic Midwifery, by Henry J. Garrigues, M.D. ; On the Determination of the Necessity for Wearing Glasses, by D. B. St. John Roosa, M.D. ; The Physiological, Pathological and Therapeutic Effects of Compressed Air, by Andrew H. Smith, M.D. ; Granular Lids and Contagious Ophthalmia, by W. F. Mittendorf, M.D. ; Practical Bacteriology, by Thomas E. Satterthwaite, M.D. ; Pregnancy, Parturition and the Puerperal State and their Complications, by P. F. Mundé, M.D.

The subjects to be discussed and the authors who are to handle them, will commend these books to our readers.

THE GENUINE WORKS OF HIPPOCRATES. By FRANCIS ADAMS, LL.D., Surgeon. In Two Volumes. Wm. Wood & Co. Standard Library. New York.

The wise men say it is a good rule to return occasionally to first principles, in order to see the full worth of the work that has been done, or to get down again to the simplicity and purity of the pioneers in the labor. If any of our readers are inclined to turn back and see how their great ancestors in the generations of medicine thought and wrote, we commend these volumes to their careful attention. They are full of much matter that is worth the reading, and justify the veneration with which they remember the great Hippocrates, and they may serve to temper the pride of those who are filled with the excellence of all things medical in this generation, in showing the wisdom and wonderful observation of those dark ages that saw the birth of such collected data as might be called a system of medical practice.

A MANUAL OF DIETETICS. By J. MILNER FOTHERGILL, M.D. Wm. Wood & Co. New York.

There is no more practical writer in our language than Dr. Fothergill, and no department of medicine could receive the master touches from his pen more beneficially than the one devoted to the directions for the proper feeding of the sick. This is done in a purely scientific way, but in the pleasing manner that always characterizes the

writings of our author. Hunger has been set into the round of daily incidents of human life to carry man to his food, and his palate is his guide in selecting food to satisfy these cravings. The carbo-hydrates are the fuel of the body, and make some of the fat as well; the albumenoids repair tissue waste; the salts go into the blood to supply its salts; the fats are, like the albumenoids, tissue-builders, and supply, too, a large proportion of the body fuel. These being the rôles which the different forms of food play, it will interest the reader to see how the authors lead up to his conclusions and deductions. After considering these forms of food and their modes of digestion, the proper manner of cooking or preparing them for use, and the various adjuncts to increase the pleasures of eating, are considered. We are the more inclined to follow the lead of Dr. Fothergill in this matter, because he is a well-kept man, and says in the course of his advice on cooking that he has eaten most of the dishes of which he speaks. This of course includes beverages as well as solid and liquid food. Of stimulants, he makes two divisions: (1) Animal and vegetable substances containing nitrogen, and (2) alcohol.

Taking beef-tea as a type of the first class, he condemns it as a food most emphatically, declaring: "As regards its food-value, it is but a jackass in a lion's skin. But it serves a most excellent purpose as a stimulant;" and to the discussion of this declaration he devotes himself earnestly.

Of alcohol, our author says that after careful study of the question, he is forced to the conclusion that the larger part of the alcohol injected into the body undergoes combustion, and is therefore a fuel-food, but that the question must always remain bipartite, alcohol as a food and alcohol as a stimulant, a force liberator. So clear are his views, and to our mind so practical, that we regret that in the restricted space of a journal review we must leave out his words. He emphatically declares that nothing but dire necessity should lead us to give alcoholic stimulants to children.

Following the chapter on stimulants, are more or less extended ones on fluid foods, canned foods and preserved foods, prepared food for children, and artificial ferments for digestion of foods.

Part II. of this work is devoted to the study of the administration of food in the different stages of life, and in diseases both local and systemic. We hope our readers will find the pleasurable employment in the study of this book which it has brought to us, and we heartily commend it to them to take equal rank with the works of Pavy, King Chambers and Roberts.

CURRENT LITERATURE.

GIVE THE YOUNG DOCTORS A CHANCE.

Within little over a year nine physicians of this city (Indianapolis) have passed to that bourne from whence no traveller returns. Several were men in the fulness of years ; none less than fifty years of age. Seven were members of the Marion County Medical Society ; one was not, nor for ten years, had he been a member. But he was in good standing with the regular profession, and a called meeting of the Society brought out a large attendance of his medical compeers, and the customary resolutions were passed and reported in the local press, and formed the basis of several eulogies. Notably among these tributes was that of his former partner, who stated that he did not doubt but that the deceased had given away at least \$100,000 in charitable practice during his forty continuous years work in Indianapolis. Granting such to be the case, we wish to protest, in the interests of all reputable and hard-working doctors, against such a course.

Medicine is a charitable profession, but it is a charity that should begin at home, and should be directed to one's self, his family and the members of his profession, rather than to be poured out miscellaneously upon humanity at large.

Had the doctor done one-half of this free \$100,000 practice, and spent a larger portion of his time in study, rest and recreation, and in collecting his just bills, it would have been better for himself, his patients, his co-laborers, and notably better for the young physicians growing up around him.

To the latter he was of no aid in any scientific or professional way, except as a model of a hard-working doctor, taking everything that fell in his way, and collecting what he could.

The young men growing up around him, in his earlier days, could have done the poor practice, and had time to collect some portion of the bills. People call the old doctor who always goes on call, time and time again, and reason about as follows : " Well, the old family doctor is pretty well fixed ; he is a slow collector, and I

know a score of people who have been owing him bills for years." They know they can get the services of such men for the old fifty cent and seventy-five cent rate with the medicines thrown in, just as their fathers and mothers did, and "pay after harvest." This course will not do now. One month is as good for pay as another, and the first is always the best.

If the remaining wheel-horses in the profession will make fewer bills, charge full rates, collect them promptly, sleep more at night, attend medical societies, avoid routine, and keep up with the rapidly moving procession of the present, they may expect to live to a green old age, have a fair consultation practice, a few score of old families whose children will rise up and call them blessed, and will have no other doctor before them. Nor will the societies have to report, as has been done four times the past year in the Marion County Society, that the deceased had literally worked himself to death to make bills that were never paid, and that his family is left without a competence.

By such a course the community will be educated to the belief that medical bills are to be paid. Young men will have a chance to do the shaky practice in their own neighborhood, and will collect a much larger portion of it than is now done. The patrons will receive better care. And the barriers between the young and the old practitioners will melt away, and they will recognize the common interests of humanity and of the profession itself.—*Indiana Medical Journal*.

THE CAUSATION OF PNEUMONIA.

In *Science* for August 27th, 1886, Dr. Henry B. Baker, commenting on Dr. Seibert's deductions from his observations of seven hundred and sixty-eight cases of pneumonia, that "whenever there exists a low or falling temperature, with excessive and increasing humidity and high winds," the disease prevails to its greatest extent, says: "This reminds me that readers of *Science* may be interested to know that facts respecting a very much larger number of cases, and respecting pneumonia in different parts of the United States, in England and in India—that is to say, in several climates

and under different conditions—confirm, to some extent, the conclusions reached by Dr. Seibert, as mentioned by *Science*. Such statistics, presented by abstract at the last meeting of the American climatological association, demonstrate, I think, that the sickness from pneumonia is absolutely controlled by the temperature of the atmosphere. The higher the temperature, the less the sickness from pneumonia; and the lower the temperature, the more the sickness from pneumonia. This is equivalent to saying that that part of the conclusion of Dr. Seibert which relates to humidity is an error; because the absolute humidity of the atmosphere is, speaking roughly, directly as its temperature, and there is most sickness from pneumonia when, or soon after, the air is driest absolutely; and there is least sickness from pneumonia when, or soon after, the air contains the most vapor of water, that is, when the temperature is highest. Relative humidity seems to have an opposite relation in the warm months to what it has in the cold months. The fact, which I think I have completely demonstrated, is that, in any given place wherever studied pneumonia is quantitatively proportional to the coldness and dryness of the atmosphere; and, as this is true for every month of the year, it follows that, if there is any pneumonia which is infectious, it is absolutely dependent upon those meteorological conditions for its action upon the human organism.

In the paper to which I have referred, I have advanced a theory of the causation of pneumonia consistent with the facts demonstrated; and, briefly outlined, it is as follows: Air expired from the human lungs is nearly saturated with vapor of water at a temperature of about 98° F., and this contains about 18.69 grains of vapor in each cubic foot. The quantity of vapor exhaled is at all times greater than the quantity inhaled; but when the air is very cold and dry, the quantity exhaled is excessive, as may be seen when we reflect that air at 32° F. can contain in each cubic foot only about two grains of vapor. The fluid which passes out from the blood into the air-cells of the lungs, and which normally keeps them moist, contains some of the salts of the blood; and the chloride of sodium, not being volatile, is mostly left in the air-cells when the vapor passes out with the expired air. When the air inhaled is excessively dry (as it always is when excessively cold), this salt collects in the air-cells of the lungs in considerable proportion. This is proved by my statistics, which show the increase of

pneumonia at such times, taken in connection with the fact that chloride of sodium in the lungs is in excess in pneumonia, which was proved in 1851 by Lionel S. Beale, M.D., of London, England. Dr. Beale also verified the observations by Redtenbacher, made in 1850, that during the onward progress of pneumonia the chlorides disappear from the urine, and reappear when convalescence has been established. In the air-cells, the chlorides are irritating when they become concentrated; but the exudation of fibrine, which is the most prominent condition in pneumonia, is probably favored by a fact in osmosis which is not generally well understood, namely, that albumen, which it is usually considered will not pass by osmosis, will pass through an animal membrane to a solution of chloride of sodium.

Thus the causation of pneumonia by the inhalation of cold dry air seems to be completely worked out. As a cause of death, pneumonia is one of the most important diseases. It is hoped that its prevention may now begin.—*Science*.

RUBELLA, OR RÖTHELN.

The paper was based upon a review of the literature of the subject and a study of the reported cases. The disease was regarded as distinct from measles and scarlet fever. The period of incubation varies between two and three weeks. In many cases there is no prodromal stage; there may, however, be prodromata for twelve or twenty-four hours; catarrhal symptoms are generally absent, but they may be present; sometimes there is congestion of the throat; swelling of the lymphatic glands is a peculiar and marked symptom; this swelling is painful, but does not pass on to suppuration. In many cases fever is absent; the eruption first appears on the forehead and face, and in the course of a few hours spreads to other parts of the body; the eruption is more or less irregular, being more intense in some situations than in others; from the beginning to the disappearance of the eruption is usually three or four days. In the greater number of cases desquamation fails to occur; complications and sequelæ are not unknown, the most common being bronchitis, pneumonia and gastro-intestinal disorders; renal affections may follow this disease; relapses occasionally occur, but not later than the end of the second week. The prognosis is almost always favorable.

The only difficulty in diagnosis is in connection with measles, and in isolated cases a thorough consideration of all the points is essential to a correct conclusion. Very little treatment is required, except in the presence of complications.

On account of the confusion existing as to the nomenclature of the disease, the speaker suggested that rubella be accepted as its proper title, and that it might be known in popular language as epidemic roseola.—*From a paper read before the American Dermatological Association, by Dr. I. E. Atkinson—Medical Times.*

CORRESPONDENCE.

SUICIDE BY CHLORAL HYDRATE.

RALEIGH, N. C., September 8, 1886.

Messrs. Editors North Carolina Medical Journal:

I trust you will allow me space in your valuable journal to relate a case of suicide which recently came under my observation, and which should be of interest to the profession from the fact that the agent used is one of our most potent, and, I might say, our salient remedies, in the treatment of insomnia generally, and particularly the sleeplessness incident to delirium tremens.

On the morning of July 18th, I was called to see Mr. ———, a man apparently about 35 years of age, who had just arrived in our city and registered at the hotel. I found him suffering from alcoholism, and his general appearance was indicative of a long debauch—was extremely nervous, and talked incoherently. After satisfying myself that he was fast bordering upon that condition known to drinkers as “*the horrors*,” I wrote for him two prescriptions, one for eight ounces of spirits frumenti, and the other for a two-ounce solution of chloral hydrate (20 grains to each f 3 i), containing, in all, 320 grains of chloral. I directed one table-spoonful of whiskey to be given in milk every three or four hours, and one tea-spoonful of the chloral mixture to be administered at intervals of two or three hours, till sleep was induced. I also ordered a cantharidal plaster, 4 + 6 inches, to be applied to his spine over the cervical region. With full instructions as to the management of the case, and advising that a competent nurse be procured at once, I left, promising to return in the afternoon.

At my next visit (seven hours later) I found my patient sleeping quietly from the effects of two doses of the chloral. The fly-plaster had been removed, and upon examination I found it had bistered admirably. His pulse was good, and his general condition was so much improved that I assured the proprietor of the house that he would be able to get out the next day.

During the early part of the night Mr. ——— persuaded his nurse to allow him to take a walk, and while out he went to a drug

store, where he found a physician and procured a prescription for a pint of whiskey, all of which he drank during the night.

At my morning visit I found patient suffering from the effects of the spirits, and at once decided to quit the case, but after a moment's reflection, feeling that I could yet relieve him, I reconsidered my hasty decision, and ordered half a teaspoonful of the chloral mixture and two tablespoonfuls of whiskey to be given him within two hours.

After leaving the room, I learned that early in the morning the patient had attempted to take his life with a revolver, but was prevented from doing so by his attendant. Seeing that his intentions were suicidal, every precaution was taken to prevent him from doing violence to himself. The whiskey remaining from the original 8-oz. prescription and the bottle containing the chloral were left with the proprietor, who had all the while kept them out of reach of our patient, but who, on being hurriedly called away, left both bottles in the room. During the absence of the proprietor he sent his nurse out to make a purchase for him, and while there alone, drank the remaining chloral, which was about 160 grains. Returning with the purchase, the boy discovered Mr. ——— lying across the bed breathing stertorously. He at once notified the proprietor, who, upon seeing the man's condition, dispatched several messengers for me, but being absent from my office, on my morning rounds, I did not get the message in time to reach his bedside before this remedy, which is so potential for good when used in medicinal doses, had done its work, and the patient, whom I had left only three-quarters of an hour before with every indication of a speedy recovery, was before me a corpse.

An examination of the body revealed that discoloration of the surface, so characteristic of chloral poisoning, that there was no mistaking the cause of death.

I have related this case not so much for the interest which it, *per se*, presents, but to point out the necessity of handling chloral hydrate with as much care as we do strychnine and other active poisons.

The smallest authenticated fatal dose is 20 grains, and the fact that a dose less than the usual medicinal dose has been known to prove fatal, points out very clearly to my mind that we should be exceedingly careful in its administration. Individuals show very

different degrees of susceptibility to this drug, and while many cases are recorded of persons recovering after taking as much as 160 grains, I have never known of recovery following such a dose as that reported by Dr. Hornaday in the last number of your JOURNAL—420 grains. Dr. H. attributes recovery in his case to the fact that his patient had saturated his system with whiskey prior to taking the chloral. It would seem to me that in this opinion the doctor is in error. The fact that his patient was an habitual drinker, and had several times suffered from *mania a potu*, would lead us to think his heart was greatly enfeebled as a result of his long intemperance; and it is a well established fact that chloral is not well borne by those patients who suffer from feeble circulation. Dr. Hornaday's patient took 420 grains of chloral and made a good recovery after nineteen hours. My patient took 160 grains and died within 30 minutes. The only way I can account for the difference in the results of the two cases is in the fact that individuals show very different degrees of susceptibility to this drug, for neither case, so to speak, received treatment—my patient dying before I could reach him, and treatment being delayed seven hours in Dr. H's case.

Respectfully,

W. H. BOBBITT, M.D.


PARIS LETTER.

PARIS, August, 1886.

Messrs. Editors North Carolina Medical Journal:

I had the good fortune to be present during a portion of the late session of the British Medical Association at Brighton. It is even more national in character, if possible, than the corresponding body in the United States, and there were very few eminent men in the kingdom who were absent. There could not possibly be a place more suitable for such a meeting than Brighton. In the first place, it is easily accessible, although that might be said in regard to almost any town in the country from our American idea of distances in travelling. The beauty of the city, and its fine situation on the sea, are much in its favor, while its numerous hotels and 120,000 inhabitants are fully equal to the task of providing for a large number of visitors. But

perhaps the most unusual advantage that the meeting this year has enjoyed is the building which had been given up for its use. Although built by George IV., when Prince Regent, and called the Royal Pavilion, it long ago passed into the hands of the corporation of the city, and is now used for public purposes. It was erected at enormous cost, and is elaborately decorated. The style of architecture is oriental, the roof abounding in minarets, domes and domelets. It does not accord with English taste, and has been much ridiculed. Sydney Smith said that it looked as if the dome of St. Paul's had come to Brighton and pupped. Nevertheless, it served an admirable purpose when a large association met under its roof. Each section had a large, beautiful and well-lighted room for its own use, and members could go from one to the other without going out of doors. It was not necessary to go from one part of town to another in looking for a certain section, as is frequently the case. The advantage of this arrangement to a stranger desirous of seeing and hearing as many distinguished men as possible was particularly great. Thus in one afternoon I was able to hear papers and discussions by such men as Lawson Tait, Edis, Ericson, Barnes, Playfair and Thompson. Mr. Lawson Tait has a physique which for some reason, perhaps the hard work which most of them undergo, is extremely rare among doctors. Of about the medium height, he is not only portly, but distinctly fat, and has somewhat of the appearance of the traditional representation of John Bull. His style of speaking is quiet, but vigorous, while independence and self-reliance are as much a part of his nature as his flesh and blood. After seeing and hearing him one does not wonder at the bitterness of the controversy which has now for several years been kept up between him and his great rival, Sir Spencer Welles. But among his friends he is genial enough. His boldness and self-reliance were strikingly illustrated in a late article reporting about 130 successful recoveries after ovariectomy, which may have since been reproduced in American journals. He stated that his method of cleansing the abdominal cavity was by washing it out with unboiled water direct from the ordinary supply of the city of Birmingham, without any attempt at asepticism, and that he would have no objection to using as a dressing a pad of germs, if he could get enough of them in a dry state. He also said that it had been his custom for several years to treat peritonitis, not with opium or morphine, which he considered a poison in such cases, but with a purge. He spoke of this, indeed, as if it had



become a common practice with others. Shall we have to wait for the millennium for the arrival of the truth in medicine!

In appearance Sir Henry Thompson is just the reverse of Mr. Tait, being sparsely built and not tall. In speaking, as in his writings, he is singularly clear and forcible. He was listened to with marked attention.

Mr. Ericsen is much older than either of these, though apparently not more than sixty-five. He is above the average in height, is well proportioned, and, with a fine face and head, has altogether a remarkable presence. His address as president of the surgical section, which was evidently committed to memory, was a particularly graceful and scholarly review of the present position of surgery.

The reception accorded to the prominent members of the profession from America, an unusual number of whom were present, was extremely cordial, both by the Association, as a body, and by its members individually. The Address in Medicine, by Dr. Billings, and a paper read by Dr. Lusk, were praised publicly and privately in the very highest terms.

The honor paid to the representatives of the International Medical Congress, who were present to urge the acceptance of the invitation to come to Washington, was particularly marked. Chief among these, of course, was the president elect. Dr. Davis was introduced to the Association at the first meeting, was asked to move an important motion, and at a general meeting he and his colleagues were invited to the rostrum to make addresses on the subject of the Congress. Dr. Davis made an admirable speech, and was followed by Dr. Brodie and Dr. Pancoast, who spoke briefly. If the reception of their remarks is any indication of the real feeling of the profession in England towards the Congress, there need be no doubt of its being well represented at Washington.

I make no attempt at dealing with the scientific work of the meeting, since this will be duly published, and that which is of value will no doubt reappear in our own journals.

I have visited M. Pasteur's laboratory in the Rue d'Ulm, in which the preparation of the virus for the treatment of hydrophobia is carried on, and also the dispensary in which the inoculations are made, and have witnessed the entire process. The original virus was obtained from a dog who died of rabies four years ago. It has been propagated by successive inoculations in rabbits, and there is

no appreciable difference in its virulence. These animals are chosen because they are very susceptible to the disease and are easily obtained, although the fact that they never show any disposition to bite is an additional advantage. A rabbit is tied securely to a board, chloroformed, and a button of bone taken from the cranium with a trephine. About one minim of a fresh solution of virus is then injected into the brain, and the wound is sewed up. Two rabbits are used in order to provide against possible accidents, one of which is death from diarrhœa, although this is rare. They commonly eat as usual as soon as they recover from the effects of the anæsthetic. The wound heals on the third or fourth day. About the seventh day the disease shows itself by a paralysis beginning in the lower extremities and gradually extending afterwards until death results on the twelfth day. These injections are made daily in order to have a daily death with a consequent fresh supply of virus, so that in the laboratory there are always rabbits in every stage of the disease. To the natural question, Why are the injections made in the brain instead of under the skin? the reply is that it has been found by experiment that when made in the brain, death takes place with uniform regularity on the twelfth day, whereas if made under the skin, it may be delayed until the twentieth. It is of the greatest advantage in managing the treatment to be able to depend on having a regular supply of virus.

On the death of the rabbit the spinal cord is removed and suspended by a thread in a bottle sealed with cotton and supplied with a layer of caustic potash for the purpose of drying, which is further aided by raising the temperature to 25° C. This drying is an essential part of the process, the number of days of remaining in the potash bottle regulating in an inverse ratio the virulence of the poison. A preparation of the *moist* cord, fresh or not, injected into a rabbit or dog, causes rabies and death, and it is this which is used in the inoculation described above. A preparation made when the cord has become partly dried will not cause death, but if repeated in the proper manner will not only protect the animal from rabies, but will prevent death if the animal has already received the poison into his system, provided the treatment be not applied too late. This, as is well-known, is the claim which is made by Pasteur and which is still on its trial before the scientific world. For the treatment of human patients as carried on daily in scores

of cases a solution is made by rubbing up one cubic millimetre of the spinal cord in one cubic centimetre of veal broth. The injections are made over the abdomen, several minims being used. In ordinary cases the treatment is begun with the injection of a preparation made from a cord that has been drying for fourteen days, the virus being then very weak. It is repeated daily with virus of increasing strength until a solution of a cord that has been drying for three days is used, and this last is continued for three weeks. The strength has been increased up to a one-day solution, but this is not now considered safe, and it is no longer carried in any case beyond the three days solution. In patients who have been bitten on parts not protected by clothing, the injections are made three times a day, and the increase in strength becomes much more rapid, so as to gain the full effect as quickly as possible.

The crowning experiment would seem to be to inject two men with virus from a fresh specimen of spinal cord, one of whom had been through a course of protective treatment, and note the result. This being impossible with men, it has been tried on dogs, with the result that the dogs which had been under treatment either did not take the disease or recovered after a mild attack, while the others died with the ordinary symptoms of hydrophobia. The result of experiments upon the lower animals and the generally successful treatment of persons who have been bitten by dogs thought or known to be mad, would seem to make the proof complete. To require that the treatment should never fail would be more than is demanded in the case of any other disease. Nearly all the failures are in those cases bitten by mad wolves, and it is thought that there must be some peculiarity in the virus from wolves which accounts for it.

The number of cases treated now amounts to about 1,900, but a large proportion of these have been persons who have come after an ordinary dog-bite simply as a matter of precaution, while a large number of others were bitten by dogs only suspected of being mad. There has been no recent statement of the exact results of treatment in persons bitten by dogs known to be mad, but this will no doubt be given in due time.

It is well-known that rabies is not confined to the canine tribe, but it is a curious fact that Guinea pigs are not susceptible to it. There are Guinea pigs in the laboratory that have been inoculated frequently with the strongest virus, and they are in perfect health. No microbe of rabies has yet been discovered.

K. P. B., Jr.

TERRIBLE AFFLICTION TO THE MEDICAL PROFESSION OF CHARLESTON—DESTRUCTION OF THE VENERABLE MEDICAL COLLEGE BUILDING AND ROPER HOSPITAL BY EARTHQUAKE.

There is universal mourning for dear old Charleston in this, her greatest affliction. Especially from every part of the land where the fearful convulsions of the earth were felt, hearts will beat in sympathy with those stricken ones who suffered in the intense throes of the unmitigated shock of the earthquake. The peril of these awful seconds is inconceivable to non-participants, and can never be described. A whole city full rendered homeless in a few moments, driven pell-mell into the streets and open spaces to escape death, and in their new places of refuge dreading worse miseries to come. Naked, appalled, they fled—delicate women, with their infants, feeble men and invalids, people of all classes, of all colors, helpless and hopeless, except in the sure mercies of God. Women were seized with the throes of labor and gave birth to infants under their temporary shelter in the streets and squares, and others had the slender thread of life broken, and surrendered their spirits with no other covering than the blue canopy of heaven. In a moment of time a great population was levelled by the visitation as of an angry God. Servant and master, the proud and lowly were brethren in this dire affliction, none having any recourse but in prayer to God. It is useless to attempt to pencil their woes and distresses in the feeblest manner, we can only pour out our hearts in sympathy to them, and give our substance to their relief as we have been prospered.

The Medical College was seriously damaged, but will be repaired so that lectures will begin, as announced, on the 15th of October, and the Alumni of the time-honored institution can now do it a service to see that it is not damaged further by any reports of its discontinuance, and that the energy of its faculty is properly presented to the public, and to young men particularly, seeking a medical education. We feel justified, from our knowledge of the men who are in charge of the College, in promising that it will be carried on with the same zeal and industry as before.

If any of our readers should desire to direct their donations to

Charleston so that they may be applied to wants of the profession there, they can accomplish it by sending them to Dr. Middleton Michel, and he will distribute them according to the wishes of the donors for the benefit of medical men and their families. In a letter to us Dr. Michel says :

" * * * *Our* urgent need at present is the repairing of the Old Medical College of the State of South Carolina. It will take \$6,000 to do this.

" The College is an individual organization, it is not a city or State organization, and it has no endowment. The faculty has always supported it through all its trials, and we have never before asked for aid. We want this aid now, and I, for one, am not ashamed to beg.

" This revered Institution was established in 1826 or 1823, I do not remember exactly.

" As to the Roper Hospital, this is a bequest of Mr. Thos. Roper. The trustees of this fund is the Medical Society. They have money and can rebuild the Hospital. After the war the city hired the building, as we could not then run the Hospital. But now Mayor Courtenay contemplates building a City Hospital on the most approved plan, which I have no doubt will be a model of a building, etc.

" What we now must urgently require is the means to rebuild our poor Old Medical College, and in this direction you must move, with others, to help us.

" The Medical College, as I find, was established in 1824, graduating its first class in 1825.

" The Faculty of 1824 consisted of J. E. Holbrook, Samuel Henry Dickson, James Ramsay, T. G. Prioleau, H. R. Frost, Stephen Elliott, with Eli Geddings as Demonstrator, Thomas G. Prioleau 1st Dean.

" Added to this above Faculty in after years were James Moultrie, John Wagner, John Bellinger, C. U. Shepard, Eli Geddings, *Louis R. Agassiz*.

" Present Faculty, R. A. Kinloch, Middleton Michel, F. L. Parker, F. P. Porcher, J. F. Prioleau, Allard Memminger, John Guiteras, etc. ; R. B. Rhett Demonstrator, M. Ravenel Assistant Demonstrator, and F. Herbert Hacker Microscopist," etc.

The faculty have issued the following address to the profession in South Carolina, to the Alumni of the Medical College and its friends at large :

"The faculty of the Medical College of the State of South Carolina desire to announce to the profession in the State that the exercises of the College will commence, as usual, on October 15th next.

"In the great calamity which has befallen the entire city the Medical College has been very seriously damaged—the roof being injured and the walls partially destroyed. The pediment and portico are entirely demolished. A new building will be immediately constructed and every accommodation afforded to the students of medicine who may favor us by their presence.

"The faculty in this emergency trusts with confidence to the patriotism of their brethren of the profession and to the whole people of the State to aid them in their efforts to preserve and perpetuate a time-honored institution which has survived the shock of war, and which is dear to the hearts of its Alumni in every State North and South. This faculty, amidst the general ruin which surrounds them, with the assurance of the aid and support of the medical profession, are firm and confident in their ability to vanquish difficulties which would otherwise seem insurmountable."

Apropos to the duty of the profession in the great distress of our brethren in Charleston, we append two clippings from the *News and Courier* of the 17th instant, which will suggest to our readers an idea of how they can promptly send in their contributions to our friends :

"Those interested in medical education and progress throughout the South have been deeply concerned at the destruction of our Medical College building. No more cheering indication can be given for the animation of the faculty in the hope of a yet brighter day in store for our good old city than is furnished in the daily receipt of letters from the most prominent medical men of our country, promising aid through special contributions for the prompt rebuilding of this revered and venerable institution.

"We are in receipt of letters from Drs. Thomas F. Wood and George Gillett Thomas, editors of the *NORTH CAROLINA MEDICAL JOURNAL*, and Dr. George F. Shrady, editor of the *Medical Record* of New York, stating that a call has been made upon the profes-

sion to aid their medical colleagues who have met with so great a calamity.

"Contributions have already reached here from Profs. L. A. Sayre and Albert H. Buck, of New York, for the above purpose.

"MIDDLETON MICHEL, M.D."

"Dr. F. Peyre Porcher has received the following letter from Dr. Louis A. Sayre, of New York, an ex-president of the American Medical Association, and one of the first physicians of the age. The letter speaks for itself, and will doubtless draw the attention of the profession throughout the country to the needs of the ruined College. Dr. Sayre says :

"I have read your letter with deep sympathy, and sent copies of it to be published in the *Record and New York Medical Journal*, with an appeal to the profession for immediate aid. I have advised every doctor to send you immediately the first fee he receives after reading your letter, and, if they do so, the aggregate amount will be of great help to you. And, to prove the value of my advice, with a desire to put it in practice, I enclose my check for \$50, and sincerely wish it was \$500."

The NORTH CAROLINA MEDICAL JOURNAL holds itself ready to aid the physicians of Charleston in any way they may see that its columns can serve them.

SUINT AND LANOLINE.—While the medical profession is busy in making available the natural grease found in sheep's wool, and, coining a new word—*lanoline*—for it, manufacturers have taken up the subject in another way. In the *Scientific American* (August 28th) we find an account of a new process to make this fat available in the manufacture of soap. Heretofore immense quantities of *suint* (the old and well-known name in the trade) have been wasted, and very noisome to the neighborhood where it is discharged. A new French process utilizes *suint*. It is raised to the melting point, and mixed with sulphuretted hydrogen, which it absorbs readily. The nature of the fat is so altered that it saponifies like any soap-fat. The sulphuretted hydrogen is not at all perceptible in the new product.

DEATH OF C. W. EAGLES, M.D.

At the regular evening meeting of the Edgecombe County Medical Society, held at the residence of Dr. N. J. Pittman, on August 2, 1886, the following resolutions were submitted by the committee :

WHEREAS, Since our last meeting (July 5th) it has pleased our Heavenly Father, in His providence, to remove from earth our worthy and esteemed fellow and co-laborer, Dr. C. W. Eagles, aged 34 years ; while we bow in humble submission to this dispensation of Almighty God, we cannot but bemoan the loss to science and to this Society of one promising so well. Therefore, be it

Resolved, That we tender to the bereaved and afflicted family our heartfelt sympathy in this, the hour of their trouble and distress.

Resolved, That we wear the usual badge of mourning for thirty days, and that a copy of these proceedings be forwarded to the family of the deceased, and be spread upon the minutes of this Society.

(Signed) J. W. JONES, M.D., }
J. M. BAKER, M.D., } Committee.
G. S. LLOYD, M.D., }

By request of the Society these resolutions are sent to the NORTH CAROLINA MEDICAL JOURNAL for publication.

N. J. PITTMAN, M.D., President.

G. S. LLOYD, M.D., Secretary.

A DRACHM of saturated solution of common salt in cider vinegar three times a day, is recommended by Dr. Smith in the *Therapeutic Gazette* for chronic diarrhœa.

SACCHARIN, the new intensely sweet derivative from coal-tar, can be used by diebetics for sweetening dishes, and being acid, combines with quinine, almost completely masking its taste.

DR. MUSSER, of Philadelphia (*Therapeutic Gazette*), has revived (?) the old treatment of summer diarrhœa of infants by $\frac{1}{2}$ gr. doses of calomel, and in cases when it is needed $\frac{1}{4}$ gr. doses of Dover's powder combined, mixed with a little sugar, and given at short intervals.

NOTES.

PODOPHYLLIN resin from leaves of podophyllum has a much milder action than from the rhizome.—*Am. Jour. Pharmacy.*

COMMON SHEEP-SORREL poisoned a lad in Birmingham, England. He ate a large quantity of the plant. It contains, according to Mitscherlich, the proportion of 75 per cent. of binoxalate of potassium in the fresh plant.—*Brit. Med. Jour.*

TEST FOR BILE IN URINE.—Agitate a few drops of chloroform in a test-tube with suspected urine. If bile be present the chloroform becomes turbid, and acquires a yellowish hue, the depth of which is in proportion to the amount of bile present.—*Natl. Drug., Am. Drug., Buffalo Med. Jour.*

THE BELLADONNA SPECIFIC AGAIN.—One of the first sensations of the Hahnemannian system was that belladonna was a specific for scarlet fever. The beauty of the theory was this: belladonna produces a scarlet rash, dry throat, etc., the irresistible deduction was that the effect of belladonna simulated the prominent symptoms of scarlet fever; therefore belladonna given during the presence of an epidemic, prevents scarlet fever. The newspaper in which we saw this restated error speaks of it as a discovery of Dr. Holcomb, of New Orleans, and rests in its virtues with the same certainty that one feels for vaccination. Unfortunately, a very large experience for at least twenty-five years proves that belladonna is not a prophylactic of scarlet fever, and does not modify it in any sense of the word. It is a very gross error to give publication to the virtues of belladonna as a preventive, and will certainly delude many persons who will read and believe in their newspaper, but who never see a medical journal.

ANTIFEBRIN—A NEW ANTIPYRETIC.—The *New York Medical Journal* (September 4th) gives a description taken from the *Centralblatt für Klinische Medicin* (August 14th) of a new antipyretic. It is not a new substance, being the neutral principle known as acetanilide or phenylacetamide, the formula for which is $C_6H_5NHC_2H_3O$. It is a white, crystalline, odorless powder, producing a slight burning sensation when applied to the tongue. It is almost insoluble in cold, but soluble in hot water, and freely

soluble in alcohol. It is closely related to aniline chemically, but was not poisonous to dogs and rabbits in comparatively large quantities, nor did it reduce their temperature. It has been tried in a limited number of cases in the human subject in phthisis, typhoid fever and articular rheumatism. The doses varied from 4 to 5 grains, and thus far not more than 30 grains have been given in a day. Ordinarily its effect is shown within one hour, reaches its maximum in four hours, and lasts from three to ten hours, according to the dose. No unpleasant effects in digestion have been observed. At first the experimenters felt some alarm at the cyanotic condition produced, but this gradually disappeared.

HAVING made arrangements with the *Therapeutic Gazette* and *American Medical Digest* by which we can offer those valuable journals in combination with the NORTH CAROLINA MEDICAL JOURNAL at reduced rates, we make the following offer to new subscribers and to those who wish to renew their subscriptions :

THE NORTH CAROLINA MEDICAL JOURNAL and

	<i>American Medical Digest.</i>	<i>Therapeutic Gazette.</i>
Single copies (one year) at....	\$4 50	\$4 75
In clubs of 3 " at....	4 25	4 50
" " 6 " at....	4 00	4 25
" " 9 " at....	3 75	4 00
" " 12 " at....	3 50	3 75

 These prices are strictly in advance.

DRS. ROBB & HALL, WOODBURN, KY.—We find Peacock's Bromides to be one of the best remedies we have ever used in nervous headaches, and in cases where a nerve sedative is indicated, it acts admirably.

NORTH CAROLINA MEDICAL JOURNAL.

THOMAS F. WOOD, M. D.,
GEO. GILLETT THOMAS, M. D., } Editors.

Number 4. Wilmington, October, 1886. Vol. 18.

ORIGINAL COMMUNICATIONS.

TRUE AIM AND SCOPE OF THE MEDICAL PROFESSION.

By GEO. W. LONG, M.D., of Graham, N. C.

(Annual Oration, read before the North Carolina Medical Society, at
New Bern, May 21, 1886.)

Mr. President, Fellows and Friends:

It is by the appointment of our Society that I now have the honor of addressing you. I should be proud on any occasion of acting as its representative. In casting about for a subject, I find the field very much narrowed down by addresses on previous occasions, and am almost at a loss to know what to talk to you about. I believe it was Talleyrand, or some other philosopher, who said that "the world did not need so much informing as it did reminding." Taking this proposition as correct, and considering the large number of young men who have recently joined our Society, I have concluded to address my remarks, for a few moments, more especially to them by way of reminding them of the

TRUE AIM AND SCOPE OF THE MEDICAL PROFESSION.

One of the most prominent points in our consideration of the character of the medical profession is that it is not a business for making

a fortune, or an instrument for the attainment of anything of a purely selfish character. Think for a moment on the great ends which it proposes—the alleviation of suffering man and the preservation of his life. To exist and to be free from physical pain are, doubtless, the two greatest earthly blessings of man. In the pursuit of other objects they are often exposed to great risk. Like the gambler, we heedlessly stake them in the great games of the passions; like him who suffers death for the truth, we sometimes offer them up at the shrine of duty; but in the first case the loss of the game brings despondency; in the other there is an exchange of temporary blessings and comforts here, for eternal happiness hereafter. What are all the good things of this world without health to enjoy them? And what boots it if we gain wealth and power, and at the same time lose our own lives, upon the continuance of which hangs all the pleasures of success? If, then, physical indisposition and death are the greatest of worldly evils, how grand must be the profession whose purpose is to obviate them! Those who undertake its duties assume a great responsibility to devote themselves to its high functions. It would be well were this the prominent feeling of all our doctors. It is not a question with the student of medicine, as with the worldly neophyte, whether he shall gain or lose in proportion to his industry or negligence. If this were the only consideration, he most probably would, under strong temptation, become reconciled to inattention and idleness, on the score that his conduct is purely a matter of expediency; that, if he saw proper, for present gratification, to sacrifice a portion of future good, nobody has a right to complain, as no one but himself can be affected. In reference to sordid interests alone, it is true, this reasoning would be unsound. In the higher view of the scope of the profession, which, without doubt, is the just one, such an excuse could not be offered to the most obtuse conscience. The medical practitioner, constantly keeping it before his eyes, could never give way to the temptation of idleness without a consciousness of duty neglected. This high conception of our office should not only be indelibly fixed in our minds, but should pervade all our professional thoughts. Habitually cherishing such sentiments not only encourages diligence in the pursuit of professional knowledge, but ennobles and elevates our characters. One lofty sentiment, carefully entertained, acts like a ferment, leavening, in a greater or less degree, the whole soul into its own nature. There is a contagion of good as well as of evil. Those who have


entered the profession should realize the fact that they have bound themselves to devote their best energies to the good of their fellow-man, so far as life and health are concerned; and this consciousness will raise them above all that is selfish. Think for a moment of a man who becomes a physician from a purely selfish motive. In the first place, he probably starts without sufficient preparation, because he has been without sufficient inducement to the requisite exertion. In the second place, as he is not so desirous to cure disease as to make money, the former will yield to the latter, when the two are incompatible. He will most likely be an unskilful practitioner, and not employ to the best advantage the knowledge he may possess. His unfortunate patient is looked upon simply as a customer. Allow him to be so far honest as to sell the best he may have at a fair price. This disposition cannot long continue. The tendencies of his mercantile position will always be to make as much money with as little expenditure of time and trouble as possible. To successfully resist evil one must have the strong support of principle, with the most careful avoidance of all seductive influences. Among the petitions that we are directed to offer to our Father who is in Heaven is that we may not be led into temptation. A doctor with no other than selfish motives is voluntarily and unceasingly exposing himself to influences which he is thus taught to shun. His prayer against temptation can be of no possible avail. Let us examine the probable course of the trafficking doctor. Of course it differs somewhat under different circumstances; but on the whole is inevitably downward. Suppose he has a good start in an unoccupied field, and without competition. If he is not already corrupt, he may aim to practice fairly, giving to each case its due amount of attention, and demanding a just remuneration. But he soon begins to imagine that he is not making the most of his opportunities. He finds out that he can make more with less cost of time and labor. His visits to those patients who can pay but little gradually become fewer; to those who can pay well gradually more frequent; for he is paid by the visit; and he now thinks that no one is entitled to attention he cannot pay for, a whit better than to a pair of shoes below cost. This is lucky for a poor man afflicted with a spontaneously curable or easily treated disease, for he gets well with very little medicine and at small expense. But woe to the man that is seriously ill and in need of regular and careful attention. Woe,

too, to the rich man in pocket and in health. His case is to be cherished. He receives visits in abundance and doses without number ; but there is no corresponding amendment. He may finally get well, for nature will sometimes cure in spite of the doctor ; and besides, the conscience is not yet hardened to murder ; and interest, even, requires that the sheep already fleeced should be kept for another shearing. Some attention must be paid to reputation ; and the patient and his friends must not be scared off by suspicions, either of deficient skill or foul play. So far as the doctor is concerned, the duration of the case is a matter of complex calculation. On one side are the dollars, on the other some remains of conscience, a little regard for future opportunities, and, perhaps, a sickly season. The welfare of the patient and professional duty are not taken into account. Suppose that competition has now sprung up, or has existed from the first. A double game must be played. The rival must be undermined and gold must be won at the same time. Under these circumstances there may be more caution in practising tricks of trade, for a knowing and watchful eye is upon his movements, and a fair seeming is essential to success. Here the selfish spirit shows itself in endeavors to try to depreciate the rival by disadvantageous comparisons, false insinuations, or even direct falsehood. The medical brother is offended, however correct and high-minded he may be, and unseemly disputes, which disgrace the individuals concerned, one or both, and injure generally the profession in public esteem. It may be that, instead of regular competition, some variety of quackery comes upon the stage, and the public mind is thrown into excitement by the novelty or the flaring pretensions of the new practice or doctrine. Our doctor, if quite lost to all principle and self-respect, and surrendered, body and soul, to mammon, is now apt to set his sail to the popular breeze, and to meet the new rival with his own weapons. Perhaps he proclaims himself a convert, and professes to practice on the novel plan. Perhaps he goes only half way, and, medical demagogue as he is, declares his submission to the will of the people, and agrees to cure them in whatever way they may deem best, whether by homeopathic globules, by sweating and red pepper, by cold water, or in the old way. There is but one more step in this ignoble descent. His cupidity is excited by the reported success of some renowned advertising doctor. He hears of this or that pill-

vender or nostrum-monger, as having accumulated great wealth, and living in corresponding magnificence. Visions of similar prosperity present themselves to his inflamed imagination. He knows that a gulf of infamy lies between him and the realization of the splendid picture. Nevertheless he takes the last desperate leap into the slough before him, and either sinks dishonored or rises up clutching the coveted prize, but covered all over with the filth of degradation, which, though he may endeavor to conceal it with the splendor of his fortunes, no subsequent cleansings can remove, save only the washings of regeneration. The number of our regularly educated physicians who sink to this depth of depravity is happily very small. Even those who may succeed to their heart's content in attaining practice and making money, find that, after all, this is poor compensation for their toils and privations. Exhausted by severe labors and loss of sleep; disturbed at meals or in the rare enjoyment of social pleasures; breasting the storms of winter or sweltering in the summer sun, fretted by jarring professional views, adverse interests, the reproaches of discontent or disappointment, the misrepresentations of malice or envy, can the practitioner, thus suffering from mental or bodily discomforts, find satisfactory compensation in the mere swelling of his hoard of dollars? If this were his only source of comfort, he would be wretched in the midst of accumulation. There is something else necessary, and this can only be found in the consciousness that he is discharging a high duty, and is thus laying up treasures where neither moth nor rust doth corrupt.

While I have endeavored to point out some of the evils of a purely mercenary spirit in the practice of medicine, it is not my intention to lead any one to undervalue the claims of the doctor to a just remuneration. The practitioner of medicine, as all other professional men, must live by his labor. He must earn from his profession the means of supporting a comfortable style of living, from the fact that he is necessarily the associate of men in the very highest walks of life. Some of the capital expended in qualifying himself must be repaid. Moreover, he is justly entitled to such an income as will enable him, after a successful career, when his health begins to fail, to withdraw from active duty with suitable provision for his family. Of course his compensation, then, must be on a liberal scale. In all communities prices arrange themselves as a

necessary result of existing circumstances. There are two evils necessary to be avoided, flowing from a selfish spirit, which have a bad influence on the profession. Under-charging is one, by which a mercenary doctor expects to build up a practice at the expense of his professional neighbors. This is justly considered by the majority of the profession as mean and discreditable, and those who notoriously practice on this principle lose more in the good opinion of their fellows and of intelligent men generally than they gain in a pecuniary point of view. The other evil is that of excessive charging, by which the physician not only brings discredit on himself, but the profession, and, in fact, though he may gain for awhile, is apt to lose in the end. In order to avoid these evils, physicians have endeavored to determine the correct charges for services in their several neighborhoods, any material departure from which would be regarded as not very creditable. We have somewhat considered the profession in relation to its ends, but there are other points of view in which it must be looked at by those who desire to fulfill its requirements and harmonize with its true character. As you know, it is universally ranked among the learned professions. More than a simple acquaintance with natural and physical science is necessary for the physician. He is expected, like other gentlemen of liberal education, to know something of history, to be conversant with great deeds and characters, with those things which have influenced the course of events, with the great productions of genius in philosophy, literature and the arts. He is expected to manifest an acquaintance with the existing condition of the world, of men and their distribution, the earth's divisions and its products, international relations, the science of government, the condition of science and learning, the great industries of manufactures, agriculture and commerce. Every gentleman claiming education is presumed to have paid more or less attention to these subjects, and gross ignorance of them would, as a rule, be considered as evidence of neglected culture and consequent incapacity for duties which, like those of medicine, especially call for the exercise of intellect. We must admit, however, that a doctor's professional abilities are often estimated by the vulgar by quite a different standard. They generally consider medical qualifications as a gift. They seem to have an idea that they come by nature, like supernumerary fingers and toes. A natural bonesetter takes precedence, in their estimation, of a Hamilton, Gross or an Agnew. A seventh son is a born doctor, and the seventh



son of a seventh son is a perfect miracle in the art of healing. The vulgar may be found among the rich as well as the poor, and a doctor who can inspire such a belief of his wonderful gifts may attain a lucrative practice, especially if he has the talent of a successful swindler, namely, the talent of humbug. But he would make a very unfavorable impression upon the thinking portion of the community. These, being ignorant of medicine, judge him by the attainments he may possess in common with themselves. If they find out that he is well-informed and has good judgment on subjects which they understand, and have reason to believe that he has been industrious as a professional student, they will generally be disposed to give him credit for equal proficiency in medical skill, and try to seek his aid when opportunity offers. Any doctor possessing general information stands a better chance of professional success than the mere pretender, and even if he should fail to gain a greater amount of practice, he certainly takes a higher position in the esteem of the community. Independently of his own satisfaction and self-respect, the possession of knowledge upon subjects connected with his professional pursuits, will have a special bearing on the opinion formed of him by others. Thus he is expected to know the progress of medicine, the source of drugs and the origin and spread of disease. There are a great many people, quite ignorant of medicine professionally, who have considerable information on such subjects, and are very capable of detecting a want of it in the doctor. Suppose, for instance, that some one of our young doctors should inform his hearers, in his rounds to his patients, or even tell our medical examiners, in answer to testing questions, that Galen discovered the antivariolous influence of vaccination; that Peruvian bark is produced in Labrador, and that Hippocrates was highly skilled in auscultation and percussion, what do you suppose would be the opinion formed of his real professional attainments? And yet, I doubt not, answers equally as absurd have been given by candidates for medical honors.

As yet I have only spoken of some of the humbler motives for the cultivation of general knowledge in connection with the professional. There are inducements of a still higher nature. Greater development is given to our intellectual powers; a wider field for the exercise of thought and expansion of all our better feelings, and, as a result of all these advantages, a more decided influence over ourselves, and of course a more powerful influence over the convictions, thoughts and

characters of others. But, while speaking of general mental culture, I would like to caution you against a course dangerous to your best hopes ; I refer to an exclusive or any obvious devotion to any branch of science or literature which may absorb your time and faculties, and withdraw, or seem to withdraw, them from your proper professional pursuit. Medicine will bear no rival in our affections or attentions. She is a jealous mistress and tolerates and even demands such accomplishments as will render her votaries more efficient in her service and reflect additional splendor upon herself. Her deepest frowns await those who acknowledge a divided fealty, or addict themselves preferably to another mistress. Even coquetry often draws down upon her professed votary a most withering indignation. There are few greater impediments to success in the practice of medicine than a real or seeming preferable addiction to some other branch of knowledge, even though it may seem collateral with medicine itself. Whether justly or not, the world will generally believe that labor and time must have been unduly abstracted from professional devotion, and will, as a rule, seek the aid of physicians who, though generally accomplished, have not allowed any other attachment to encroach upon their legitimate one. So, if we propose, as our great object in life, a wide field of professional duty, we must let it be clearly seen that such is our aim, and that whatever else we may have gained through opportunity or diligence, is to be made subservient to this end.

OIL OF TURPENTINE IN SCROFULOUS OZÆNA.—Malacrida (*Gazz. degli Ospit.*, March 7. 1886 ; "*Ctrlbl. f. Chir.*," July 17, 1886) reports the case of a girl ten years old who had ozæna of long standing, which had long been under treatment in vain. Taking a suggestion from the cure of old fistulous tracts with oil of turpentine, the author used this drug locally, and gave the patient a supporting diet. Cotton tampons, moistened with a few drops of the oil, were introduced into the nose. As they caused considerable irritation, those subsequently used were wrapped with dry cotton. A perfect cure took place in a week. Five other cases treated by the same method are mentioned, in none of which was the cure delayed longer than a month.—*New York Medical Journal.*

SELECTED PAPERS.

REPORT OF EIGHT CASES OF INTUBATION OF THE LARYNX FOR CROUP (O'DWYER'S METHOD).

By WM. P. NORTHRUP, M.D., Pathologist to the New York Found-
ling Society.

In the following cases it has been the aim of the writer to have each patient examined by one or more physicians of recognized merit and position, who are prepared to vouch for the accuracy of this report :

Case 1.—Gussie B., aged five years and a quarter, a sister of the one the report of whose case was published in this Journal for April 3, 1886, also a patient of Dr. R. N. Disbrow. Died.

April 18, 1886.—She awoke with croupy cough, and there was a diphtheritic exudate on both tonsils.

19th.—There were aphonia, croupy cough, croupy inspiration and expiration, the countenance was anxious and dusky, restlessness and recessions were extreme, and there was absence of vesicular breathing behind.

4th, P. M.—Dyspnoea was urgent, and a tube was inserted in presence of Dr. Disbrow. Relief was immediate and complete. Examination five minutes later showed vesicular breathing clear and low-pitched over both lungs behind, with a few crepitant râles at the base of the left lung. In five minutes more the patient slept quietly. Six hours later respiration was rhythmic, but varying in depth—first a deep breath, then shallow and shallower, then deeper and deeper, and so on.

The urine showed albumin, hyaline and granular casts. Pulse 144; respiration 61; temperature 103·4° in the rectum.

20th.—She slept much and took milk reluctantly. Pulse 144 to 168; respiration 40 to 50; temperature 103° to 103·4° in the rectum.

21st.—She was very restless during the night. Refused milk. Respirations were loud and noisy.

She died at 5 a. m. No autopsy was allowed. Cause of death, extension of diphtheritic process into bronchi.

The tube was removed after death, and found perfectly clear.

Case 2.—Mamie B., aged five years, a patient of Dr. O'Brien Recovered.

May 19, 1886.—There were epistaxis and croupy cough.

21st.—There was a diphtheritic exudate on both tonsils.

22d.—There were dyspnœa, croupy inspiration and expiration, restlessness, recessions, absence of vesicular breathing over both lungs behind. A tube was inserted, with immediate relief of dyspnœa. Vesicular breathing, low-pitched, was heard over both lungs; color clear; respiration easy and quiet. Five hours later she had slept several hours, and had taken milk freely, with little coughing. Pulse 140; temperature 100.5° in the rectum.

Albuminuria was present.

25th.—The pharynx was clear of exudate. She slept well and coughed moderately.

27th.—The tube was removed, after having been in five full days.

Fifteen days later she talked and sung, and seemed quite well.

Case 3.—Charles L., aged three years and nine months, patient of Dr. Saunders.

May 17, 1886.—He was hoarse, had a croupy cough, and there was a diphtheritic exudate on both tonsils.

19th.—Tonsils clear.

22d.—Inspiration and respiration croupy. There were marked restlessness and recessions. Pulse weak and lost at the wrist at the moment of inspiration. Temperature 98.5° . Dyspnœa urgent. A tube was inserted, with immediate relief.

23d.—Pulse 164; respiration 62; temperature 100.6° .

At 3 P. M. he coughed the tube out during a hard paroxysm after taking milk. The tube was reinserted after three hours, in which time the dyspnœa had again become urgent.

8 P. M.—Pulse intermittent, 128, while sleeping; respiration 36.

24th, A. M.—Pulse 128; respiration 46; temperature 102.5° in the axilla.

P. M.—Pulse 140; respiration 44; temperature 103.8° in the axilla.

25th, A. M.—Pulse 144; respiration 48; temperature 102° in the axilla.

P. M.—Pulse 168; respiration 54 to 64; temperature 101° in the axilla.

26th.—He died at 4 A. M. from extension of membrane to the bronchi.

No autopsy. The tube on removal was found clear. The tube was in the larynx three days and a half.

Case 4.—Recovered. Willie W., aged three years and nine months, a patient of Dr. H. A. C. Anderson.

May 28th.—There was diphtheria of the pharynx.

June 1st.—There was croupy cough.

4th, A. M.—The child was very restless, tossing about; there were loud, harsh inspiration and respiration; marked recessions; the countenance was anxious, and the color dull, pale. There was a diphtheritic exudate on the tonsils. Dyspnoea became gradually very urgent, and vesicular breathing was absent or in the chest behind. A tube was inserted in the presence of Dr. Anderson. Relief was immediate and complete. After ten minutes the chest was again examined. Vesicular breathing was found to be clear, dry and low-pitched. The child went to sleep quietly on lying down, with respiration inaudible, at the foot of the bed. Pulse 132; temperature 100° in the axilla.

5th.—Albuminuria was present.

6th.—The tube was coughed out forty hours after its insertion. The patient was seized with violent coughing while drinking. Dyspnoea was not urgent, but it was thought best to remain at hand during the night and await the result. It was not necessary to reinsert the tube.

Milk was swallowed easier after the removal of the tube.

7th.—The Pharynx was clear of exudate.

12th.—Voice had returned strong and loud, though a trifle hoarse.

The child made a good recovery aside from an abscess below one ear. This case was watched by five physicians, whose names appear sooner or later throughout the report.

Case 5.—Died. Willie B., aged five years ten months, a patient of Dr. Elmer.

June 4th.—He was playing in the yard, when he began to suffer from headache and fever.

6th.—Diphtheria of the pharynx was well marked.

9th.—There was croupy cough.

10th.—There were croupy inspiration and expiration.

He slept none last night, was restless, the dyspnoea gradually be-

coming more and more severe ; there were marked recessions, and the respiratory murmur was absent over the whole of the chest behind. Respiration was loud, harsh and croupy, and the pulse was rapid, feeble and intermittent.

A tube was inserted in presence of Dr. Elmer. Relief from dyspnœa was immediate and complete. He coughed moderately. Good vesicular breathing was heard over the whole chest behind, the pitch was low, and there were but few subcrepitant râles. In ten minutes the child lay on the bed and slept quietly for two hours. Nine hours after the insertion the pulse was 148, in'ermittent.

11th, 5 A. M.—Pulse 136 ; respiration 34 ; temperature 102.5° in the rectum. Epistaxis and albuminuria were present.

10 A. M.—Pulse 140 ; respiration 44 ; coarse râles were heard at the root of the lungs.

12th.—Pulse 140 to 152 ; respiration 27 to 38 ; temperature 103° in the rectum.

13th.—Pulse 148 to 152 ; respiration 54 to 58 ; temperature 102.6° to 104° in the rectum.

The pulse was intermittent, the hands and feet were cold and clammy. During the day distinct bronchial breathing was developed at the base of the right lung.

14th.—Temperature 105° in the rectum. He died with distinct signs of pneumonia. The tube was found clear on removal. There was no autopsy.

Case 6.—Died. Adna H., aged seven years, a patient of Dr. Bradshaw.

June 9th.—There was a well-marked exudate of diphtheria on the tonsils and velum.

10th.—There were croupy inspiration and expiration.

11th.—Dyspnœa was increasing gradually, and in the afternoon it was urgent, and there were marked recessions. There were a harsh, dry, croupy cough and respiration. The patient had been exceedingly restless for twenty-four hours. A tube was inserted in presence of Dr. Bradshaw. The patient coughed severely and expelled much tenacious mucus, then fell into a quiet sleep. She took milk with very little difficulty.

8 P. M.—Pulse 168 ; respiration 132 ; temperature 104° in the rectum. After a refreshing sleep, she sat up and drank a cup of

milk without difficulty, then suddenly dropped on the bed dead. There was no autopsy. Death resulted from heart-failure. The tube was clear on removal. The pulse from the first was poor and stimulants were given freely.

Case 7.—Freddie B., aged five years. Died. The patient was seen with Dr. Macgregor.

June 10th—He was feverish and there was a croupy cough.

12th—There was a well-marked exudate over the tonsils, rapidly spreading upon the walls of the pharynx. There were croupy inspiration and expiration. Pulse 108 to 112; respiration 28; temperature 101.2° in the rectum. The pulse was regular and strong.

3 P. M.—There was an exudate on the tonsils, velum and post-pharynx rapidly spreading. Dyspnœa was urgent, there were marked recessions and restlessness. Examination of the chest showed entire absence of vesicular breathing and no râles. A tube was inserted in the presence of Dr. Macgregor. Relief was immediate and complete. Sleep followed in ten minutes.

13th.—Pulse 120 to 132; respiration 32 to 36; temperature 103.5° in the rectum. The patient was restless and refused milk; pulse intermittent. The exudate was still further extending, and the pharynx was very much swollen.

11 A. M.—Pulse 140 to 148; respiration 52 to 56; temperature 103.5° in the rectum. There was no albuminuria.

1 P. M.—Respiration 45; temperature 104.8° in the rectum. Vesicular breathing was indistinct, and there were low-pitched sub-crepitant râles.

8:30 P. M.—Respiration 50; temperature 105.2° in the rectum. There was no albuminuria.

The patient died apparently of the severity of the diphtheria. There was no stenosis and no pneumonia. No autopsy was made. The tube on removal was clear.

Case 8.—Recovered. Robbie W., aged one year eleven months. Patient of Dr. Anderson, and a brother of the patient whose history is given in Case 5.

The patient became hoarse the day on which Case 5 was operated on.

June 15th (eleven days later).—His hoarseness developed into dyspnœa; diphtheritic exudate appeared on the tonsils and uvula.

On June 15th the dyspnœa became more marked, slowly and

gradually becoming severe, and at length urgent. Restlessness was extreme, there were marked recessions and absence of vesicular breathing behind. A tube was inserted in the presence of Dr. Anderson and Dr. Bleything.

Dyspnœa was at once relieved and fully, vesicular breathing was restored, there were no râles, and the pitch was low.

In fifteen minutes the child was sleeping quietly.

16th.—He had slept all night and much of the preceding day. Pulse 120; temperature 100.4° in the rectum. Albuminuria was present.

His condition remained good for six days, when the tube was removed. The child made a good recovery without any complications.

Of nine patients operated on, four have recovered.

Of the four who recovered, all had diphtheritic exudate in the pharynx; all were suffocating from laryngeal stenosis; all had these symptoms: restlessness, recessions, absence of vesicular breathing behind and albuminuria. Each patient was examined by two physicians, most of them by more than two, and one by six physicians.

Of those who died, two died of extension of the exudate into the finer bronchi—bronchial diphtheria—but died before pneumonia had developed.

One developed well-marked pneumonia.

One died of sudden heart-failure.

One died of malignant diphtheria.—*New York Medical Journal*.

A PATIENT has died at Bellevue Hospital who fired seven shots into himself with a 22-calibre revolver at the Grand Union Hotel, but in whose case, owing to the prompt and skillful interference of one of the house-surgeons of the hospital, life was prolonged for two weeks, and it was even thought for a time that there was an excellent chance of recovery. Five of the wounds were serious, and two of them were especially dangerous; one of the balls being fired into the top of the head, fracturing the skull, and another into the throat, severing the larynx. For the relief of these, trephining and tracheotomy were performed at a single sitting.—*Boston Medical and Surgical Journal*.

ON THE PRINCIPLE OF TRACTION-RODS, WITH A SIMPLE SUGGESTION APPLICABLE TO ANY FORCEPS.

By WILLIAM STEPHENSON, M.D., Professor of Midwifery in the University of Aberdeen.

The addition of traction-rods to midwifery-forceps marks an epoch in the process of their evolution. The credit of the conception is due to Tarnier ; and, though his special form may be superseded, yet the profession will ever be indebted to him for the idea. They may as yet be imperfect in form, but it is not likely that the principle will be given up. Certainly no other modification has attracted so much attention, and been adopted in special cases by men of different schools in all parts of the world. Whatever objections may be brought against his forceps, the opinion that they possess some advantage over the ordinary instruments is too general amongst those who have tried them to be ignored. In what does this advantage consist, or what is the principle involved in traction-rods ? becomes an important question.

For myself, I must admit that the objections I entertain to Tarnier's forceps have prejudiced me against them. I still hold that they are too cumbrous and complicated to meet the wants of the general practitioner ; that their method of use implied in the term *axis-traction* is delusive and wrong when applied generally ; and that we lose much of the power and information of the skilled tactus when we relinquish the hold of the handles proper, and draw only by the rods. Experience in their use has, nevertheless, taught me that they embody an important principle, which brings the forceps nearer to the ideal of what they should be.

In comparing the action of traction-rods with that of the ordinary curved forceps, Tarnier and his followers do not state the subject accurately. They have assumed that the power is exerted always by simple traction, and that in both cases the force can be represented by a straight line. This is true for traction-rods only ; it does not correctly represent the mode of using the ordinary forceps. With them it may be possible, in very easy cases, to deliver the head by simple traction ; but, whenever the resistance is considerable, there is, consciously or not, on the part of the operator, always

a leverage or straining effect by the hand, whereby the action is rendered compound, one force drawing in the line of the handles, and others acting as a couple, whereby the force is directed in the line of the axis of the blades. The resultant, therefore, cannot be represented by a straight line, but by a line and a couple; and the recognition of this fact is essential to the understanding of the principles of traction-rods. The difference between Tarnier's and ordinary forceps is not between direct and oblique traction; but between simple traction and a leverage or straining action, where the fulcrum can never be a rigidly fixed point. Dr. Albert Smith (*Transactions of the American Gynecological Society*, Vol. VI., 1881) advocates the leverage method, pure and simple, without traction; generally, however, the two are combined, and in difficult labor it is impossible with the ordinary curved forceps to deliver the head without some degree of leverage or straining.

In discussing the subject, it would be well were all agreed as to the essential requirements in an ideal pair of forceps. These, to my mind, are the following:

1. They should provide a secure hold, which gives full command over the head. It is not sufficient that the hold does not slip, but the command also over the head must be good. For this purpose, we must be able to apply the blades to the head, in whatever position it may be, so that the force passes through the centre, and acts equally on all parts. Such a hold, having been obtained, should not be disturbed. The pelvic curve in the forceps is necessary to accomplish this when the head is at the brim.

2. Prehension should mainly be dependent upon the cephalic curve, with a minimum amount of compression. To maintain the perfect action of the blades in this respect, it is necessary that the line of traction should coincide with the axis of prehension of the blades. In proportion as traction is made out of the axis of prehension, the forceps are liable to slip, and increased compression is necessary to counteract this, and retain the hold. In order to permit a variation in the line of traction, it is advisable that the fenestra should be of sufficient width.

3. The forceps should be such that the extractive force can be exerted in any desired direction by simple traction only, and free from all strain upon the hand of the operator or on the foetal head. With an instrument such as the forceps must necessarily be, force

can be always applied more directly and accurately and more savingly by simple traction, than by a combination of traction and leverage exerted by straining with one hand, or operating by two hands through a rigid rod. Simple traction, skilfully adjusted, is the safest and most saving mode of action.

4. The forceps should afford facility of varying the line of traction, when necessary, without disturbing the hold and command over the head. This condition cannot be accomplished by simple traction, with forceps which, when applied, form a rigid rod. With such an instrument, a change in the direction of the force can be accomplished only by a change in the position of the blades, or by the leverage action of the hand. To effect the change by simple traction only, the instrument must be composed of two parts, one movable upon the other.

The question between the ordinary forceps and traction-rods turns on the means of adjusting the line of traction ; but, whilst Tarnier and his followers have limited themselves to the axis of the pelvis, and mainly directed their attention to the head at the brim, the means devised have a much more extended application. By the prominence given to the opinion that traction should in all cases be made in the line of the pelvic axis, the true principle of the use of traction-rods has been obscured, and placed on too narrow a footing. Direct axis-traction is all that is required in simple cases where the resistance is offered by the soft parts alone ; but it is quite insufficient in difficult delivery, where not only is the normal mechanism changed, but the resistance is greatly increased by malposition of the head, or by contraction of the pelvis.

Men may deceive themselves, and imagine that they are drawing directly in the line of the pelvic axis ; but how can this be ascertained more than in a general way ? It is certain, also, that the true line of action in difficult labor often lies out of the direction proper in the normal pelvis and head. Every skilled operator keeps the pelvic axis in view ; but, consciously or not, the tactus leads him independently to adjust the direction of the force, altering it from time to time to meet the requirements of the case. It is not alone when the head is at the brim that traction is required out of the normal line, but also when the head is well in the pelvis, if its position be faulty. It is not, then, direct axis-traction alone that we must aim at, but skilfully adjusted traction ; we must be able to

vary the direction when necessary, and the question to be determined is, what is the best mode of obtaining the means of readily altering the line of traction without diminishing the command over the head or rendering the forceps liable to slip?

The pelvic curve in the forceps is necessary to obtain a proper hold of the head when it is at the brim, but it diminishes the power of simple traction, and necessitates the use of other means to obtain the proper direction of the force. In the straight forceps the line of traction supplied by the handles coincides with the prehensile axis of the blades, and thereby a good hold of the head is secured with a minimum amount of compression. But when the pelvic curve is introduced, the two no longer lie in one line, but are inclined to each other at an angle. The greater this angle, the more is the power of prehension and simple traction diminished. The defect, so far as the hold is concerned, is readily compensated by additional compression, whilst the defect in the line of traction is corrected by a leverage action of the hand. In easy cases, so long as the resistance is not great, the amount of compression is not such as is likely to be injurious to the head, nor is the strain on the hand so great as materially to limit the power. The instrument answers fairly well, and is sufficient for the majority of ordinary cases. But when the resistance is great, the defects become apparent. The amount of lever action becomes too much for one hand, and both are brought into requisition—one one way, the other another. The strain, moreover, is not confined to the operating hands alone—it is conveyed to the foetal head. In the efforts to adjust the traction the handles are carried backwards, straining the pressure or altering the position of the blades; the command over the head is lessened; and not unfrequently, when the strain is great, the forceps slip.

Another means of correcting the defects of the ordinary forceps is to give to the handles a curve complementary to that in the blades, as in Aveling's forceps. This, however, only restores the line of simple traction to that of the axis of prehension. It does not meet the fourth requirement described above, of affording the means of varying the line of traction without straining or otherwise disturbing the grasp upon the head.

With all forceps which, when applied, form, so to speak, a rigid rod, the line of simple traction can be varied only by altering the position of the blades or moving blades and head together. A change in the

position of the blades does not necessarily imply diminished command over the head, yet in some cases this must undoubtedly happen. With the other resource, that of turning the head with the blades, the movement may occasionally be advisable, but generally it would certainly derange the mechanism of the labor. It is important, therefore, that we should have at our command, when resistance is great, some other means of adjusting the line of traction than that supplied by the handles of the instrument. This means for facility and accuracy in the adjustment must be movable upon, and not a component part of, the rigid instrument. The requirement is met by adding a separate traction-rod, freely movable upon the forceps proper.

All the forms of traction-rods which have as yet been devised are open to the serious objection that they greatly complicate the instrument; some simpler means is most desirable; and it would be a further recommendation if it could be applied to any form of the forceps, and be used or laid aside, as desired. This, I would suggest, is to be found

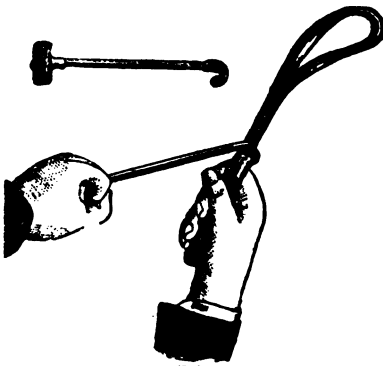


Fig. 2.

in a simple hook, such as is here figured. What I first employed was the ordinary crotchet and blunt hook combined, using the crotchet end as the hook, and it answered very well. Held in the left hand, the tractor can, when wanted, be attached between the shanks and over the lock. With it so placed, and the right hand grasping the handles in the ordinary manner, traction is made simultaneously with both hands, the

right acting in the line of the handles, the left at a proper angle, so that the resultant will coincide with the line of the desired movement. The force can be thus exerted in any direction, and changed at any time, without affecting the hold of the instrument, or throwing a strain other than direct traction upon the foetal head. Perfect facility in the most delicate modification in the direction of the force is thus secured; simple traction without strain alone is used, whilst the means is simplicity itself, and can be used with any forceps. It is, I contend, a great mistake to relinquish the hold of the prehensile handles, as recommended by Tarnier and his followers. We thus lose much of the valuable information which is conveyed through the instrument to

the mind of the operator—that skilled tactus, the full value of which can be estimated by those only who possess it.

An objection may be advanced that the power is applied less directly than with Tarnier's rods, and therefore there is loss of force. Even if this be the case, it is certainly largely counterbalanced by the gain in simplicity. And, after all, does not this suggestion look very like what has before been advanced? It embodies the action to which many have recourse, when they use both hands with the forceps; but it defines more clearly the principle, and gives greater precision to the action. It recalls to mind the fillet over the lock, suggested by N. F. Nägele, in 1843; and the peculiar instrument of Herman, with a similar application. But the idea associated with these is what I would wholly discard—that of leverage; whereas what is sought for and specially insisted upon, in the use of the simple tractor, is direct traction only.

The chief question is, Does the plan fulfil the end in view? I have now used it in several difficult forceps cases, and am satisfied that I obtained with the simple tractor the same advantage I had found from using a modified Tarnier's forceps. In one case I have had the opportunity of comparing the two methods with the same patient, and therefore as near as possible under the same conditions. The first time I employed the late Dr. Macdonald's modification of Tarnier's forceps, the second, the ordinary Simpson's forceps with the hook tractor; the latter answered in every way as satisfactorily as the more complicated instrument. Those of my friends who have tried the tractor have reported favorably upon it. Experience alone will decide the relative merits, with the sure result of the "survival of the fittest."—*British Medical Journal*.

POINT OF DIAGNOSIS OF ROTHEN.—In the *Lancet*, April, 1886, p. 785, Dr. Glover says he has noticed the earliest symptom to excite notice in cases of rotheln or German measles, is a swollen gland in the neck at the back of the sterno-mastoid muscle. This symptom he has noticed four or five days before the rash appears. When disease is prevalent, or already exists in a family, and a swollen cervical gland in a young person appears, without obvious reason, it may be suspected that the system is already infected.—*Southern Practitioner*.

THE EFFECTS OF MILITARY DRILL ON BOYS.

By Prof. D. A. SARGENT, M.D., of Harvard University.

* * * * *

The consecutive action and harmonious relation of the nervous, muscular and vascular systems must accompany every effort to improve the physique and render the individual energetic, healthy and strong. How to attain this three-fold result is the problem that the instructor of physical training has before him.

If you lift your arm in this manner (flexing the arm at the elbow), it is because the biceps muscle contracts, but the fibres are not hard and tense, and there is little evidence of an increased circulation. This would be termed a movement—almost a passive movement—and is what might be first advised to restore efficiency to the arm of a paralytic, or to preserve a single group of muscles from atrophy. This is the basis of the Movement Cure as founded by Ling, of Sweden.

If you should contract the muscles of the arm rapidly and energetically, you would give exercise to nerve-centres and nerve-fibres, but the muscles would not be efficiently used, and the blood-supply would not be much augmented.

By pursuing this method the nervous system can sometimes be improved and the muscles made responsive, but activity will be attained at the expense of endurance. This is the basis of the Delsart system of physical culture now so popular in the schools of elocution.

Now grasp a heavy dumb-bell or weight in the hand, and elevate it slowly to the shoulder. In so doing you bring about an energetic action of the flexor muscles, but the nervous system is not especially active, and though the blood-vessels of the arm are gorged with blood, the circulation is not much improved. By pursuing this method the muscles can be increased in size and strength, but the individual, though strong, will lack heart and lung power, and be constitutionally weak. This is the result of the Heavy Weight System as formerly practised and advocated by Dr. Winship.

Now if the arm is alternately contracted and relaxed while using a lighter weight, the blood in the arteries is pushed forward into

the veins, and through the veins into the heart. When it arrives at the heart, that organ is stimulated to contract with greater energy, and a proportionally greater amount of blood is sent back to the arm. In following this course, the blood-vessels in the parts used would be greatly increased in size and capacity, but in case many muscles were called into play at the same time, the brain and central nerve system would lack their due share of blood, and power to continue the effort for any length of time would be wanting. This, in a word, is the chief defect in the system of Light Gymnastics, advocated so fervently some twenty years ago by the late Dr. Dio Lewis.

These four methods of exercise, when elaborated and applied to the whole body, represent, I say, the fundamental principles of four great systems of physical training, each method being admirably adapted to meet the special wants of certain individuals, but wholly unreliable, and in many cases followed by fatal consequences when applied indiscriminately to all classes in the community.

To select at once a system of exercise that will do no harm to any one, and yet be beneficial to all, is a difficult task, yet we shall come nearer doing the greatest good to the greatest number if we follow what may be termed the physiological method. As near as I have been able to ascertain them, the essential requisites of a good exercise may be summed up in the following suggestions :

(1) The person should be sufficiently interested in the exercise to give it his attention in order to secure the necessary volitional power to start the movement. Any exercise executed in a lifeless way is of little benefit to nerve or muscle in a healthy condition.

(2) There should be a weight or resistance to overcome in order to bring out the working force of the muscle, the theory being that the muscles were not created merely to move the parts to which they are attached, but to do service and help man bear his burdens. In using a weight, the muscle gradually acquires the force with which it tries to contract.

(3) The exercise must be performed with sufficient vigor and rapidity to engage the energetic contraction of the muscles employed. When this is done, old tissue is broken down, and its place is supplied with new material in increased quantity, thus augmenting the size and strength of the muscles. The rapidity of the movement puts a limit to the weight used, and the alternate contraction and

relaxation of the muscles assists the circulation of the blood in the parts employed.

(4) As many muscles as possible must be brought into action in order to secure a full-orbed and harmonious development of the whole body. One-sided development is usually attained by robbing some other part of its just share of the body's nutriment. It is apt to be accompanied by a functional disturbance of one or more of the vital organs, by inducing malformations of the thorax, or it is likely to lead to the straining of parts that are weak, by gauging their strength by parts that are strong.

(5) A sufficient number of muscles should be called into action at one time to stimulate the action of the heart and lungs and increase the circulation and respiration. This is one of the most important considerations to bear in mind in regard to exercise. The more muscles a person can use at one time, and the more rapid and extensive the movement, the greater the muscular consumption of oxygen and elimination of carbonic acid. In order to sustain this activity in the muscles, a greater amount of oxygen must be taken in, and a greater amount of carbon-di-oxide must be given off from the system. This is accomplished through the respiration. "If a man walks one mile an hour, he breathes twice as much air as when lying down; if he walks four miles an hour, he breathes four times as much, and if six miles an hour, seven times as much." He takes out of this inspired air an increased ratio of oxygen, and eliminates nearly the same proportion of carbonic di-oxide during expiration. To keep up this increased respiratory activity and to aid the heart in removing the waste material and hastening forward the new, the limbs and walls of the chest must be absolutely free from any ligatures or constrictions. The slightest interference with the action of the respiratory muscles at this time embarrasses the functions of the lungs and heart. The chief advantage of exercises that give employment to many muscles at one time is that by increasing the respiration and quickening the circulation, they improve the health and strength of all parts of the body.

(6) As a "latent period" precedes the contraction of a muscle, so a momentary period of rest should, as far as possible, precede movement in exercise. This is best secured where there is an alternation in the movements, as in walking, running, rowing, etc. All tetanized movements, such as holding weights, standing in a constricted posi-

tion, etc., tend to impair the tone of the muscles by interfering with the nutrition of both muscles and nerves.

(7) The exercises of the young should be of such a composite nature as to bring about the coöperation and coördination of the muscles. This involves principally the training of the central nerve system. All gymnastic sports and athletic games that require skill, dexterity, coolness, courage and presence of mind, are included in this list, and are exceedingly valuable to any system of physical training, as adjuncts in the development of character.

My principal objection to military drill as a physical exercise is that it does not to any extent meet the physiological demands of the body as set forth in the seven observations just referred to. In other words, it is not of sufficient interest as a means of physical development to arouse any moral earnestness and enthusiasm on the part of the boys. The exercise of the manual is not performed with sufficient force and rapidity to engage the energetic contraction of the muscles employed. It is essentially a one-sided exercise, bringing into excessive action the elevators of the right scapula, the deltoid, biceps, flexors of the fore-arm, wrist and fingers of the right side, while the other muscles, excepting the legs on parade days, do not get sufficient employment to keep them in good condition. It does not increase the respiration and quicken the circulation to a sufficient extent to secure the constitutional benefits that should accrue from exercise.

During the drill the clothing is buttoned close around the chest, and natural respiration is hindered. The muscles are not alternately contracted and relaxed, but are tetanized or kept in a state of prolonged tension. This, as we have seen, not only impairs the tone of the muscles used, but it also puts an additional strain upon the brain and nervous system at a time when both should be as much relieved as possible. Finally, the mere exercise of the manual of arms does not give sufficient breadth and scope of movement to secure the coöperation of the muscles, and as a training for the central nerve system, it is of little or no value.

Coolness, courage, presence of mind, and that rapid and responsible exercise of judgment in emergencies, so valuable to the man of business, as well as to the soldier, are not developed by the drill itself, though I will admit that other moral attributes, such as obedience, patience, fortitude and forbearance, may be brought to a

high degree of perfection. The community at large have long entertained the idea that there was something about military drill that made young men erect, or, as the committee have been pleased to term it, giving them a graceful and manly bearing.

I dislike to take from the drill one of the strongest attributes that has commended it to parents and teachers, but unless I have been misled in my observations, there is nothing in the drill itself that tends to make one erect or graceful. On the other hand, I am prepared to maintain that it tends to make him stiff and angular in his movements, as well as to droop and round his shoulders.

This fact was long since brought to the attention of military authorities, and a set of calisthenic exercises or free gymnastics have been incorporated into all of the treatises on military tactics, to correct this tendency. I refer to what is familiarly known as the "setting-up" drill. Upton says, in his manual of "United States Army Infantry Tactics": "As the importance of 'setting up' cannot be overestimated, the exercises must be often recurred to, and all soldiers will be frequently practised therein."

Notwithstanding this recommendation, I have yet to learn of a single military school in this country, the National School at West Point excepted, where these exercises are practised assiduously. They are irksome and unpopular, like all corrective measures, and are consequently never insisted upon.

There is another method, commonly known as "tailorizing," by which youthful soldiers may easily acquire a full chest, square shoulders and a straight back. The results may not be as enduring, but they help out on parade day, and undoubtedly contribute something to the "manly bearing" that is so often spoken of. The moral is: Do not waste your admiration over the military figure until you see it with its coat off.

In reference to the gracefulness that is thought to characterize the movements of young cadets, I can only say it is not the outcome of drilling and marching. The soldier is trained to square corners, straight platoons and angular movements. Curves and embellishments are not encouraged in speech or in action. If you would account for the graceful poise of our national cadets, you must visit West Point in summer, and see them from one to two hours a day in charge of the dancing master.

Having considered at some length what the drill does *not* do for

boys, let me invite your attention to a brief consideration of some of the things that it does do. Here let me forestall any impression that my previous remarks on this subject may have left, and state that I do not think that military drill, as conducted in the Boston schools, is injurious to a strong, full-grown healthy boy, except in a negative way. That is, it does not furnish him the physical training he needs for the maintenance of vigorous health, and the acquisition of a complete or symmetrical development. But those of you who have had the pleasure of examining school-boys, or of looking over their measurements or photographs, will bear me out in saying that the strong and well-developed boys are largely in the minority.

The pupils attending our public and private schools represent nearly every phase and condition in life. Some are well nurtured, others not. Some have favorable hygienic surroundings at home, others are subjected to unhealthy influences. All bear the stamp of a good or bad inheritance, and the strong and weak points of the parents show themselves in the physique as readily as they do in mental characteristics.

As no two minds are alike, so no two bodies are alike. But growing out of this great diversity of shapes and sizes, there is a figure around which nature tends to range those of a certain age, height or weight (according as either is taken for the standard). This is termed the mean or typical boy for a given age, height, etc. Any marked divergence from this standard is readily detected by a casual observer. My attention was long since called to what I think may be termed the prevailing weaknesses or defects in the school-boy's and student's physique.

These are a drooping of the head, flatness of the chest, narrowness of the waist and an exaggeration of the normal or physiological curves of the spine, and I might add to this number, though it is not quite so common in boys as in girls, lateral curvature of the spine. These defects, I say, are so apparent, that it does not take a practised eye to detect them. They attract the attention at once of any one who cares to examine the figures.

The drooping of the head and flatness of the chest may be accounted for by the increased prevalence of myopia, tightness of clothing and the pressure of the school-desk or table on the lower ribs and sternum. The hollowness in the back is partly due to the fact that it is a compensating curve, but more probably attributable to the weakness of the trapezii, rhomboidii, serrati and latissimus dorsi muscles.

The smallness of the waist is undoubtedly largely due to inheritance, and to the fact that the youth of the present day make very little use of the muscles of the waist and loins. Lateral curvature of the spine may be caused in many ways: by defective seats, bad positions in writing and drawing, standing for a long time on one leg, carrying weights, or using one arm more than another, etc.

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If it is deemed advisable to make military drill a department of school instruction, I see no reason why a system of corrective exercises cannot be introduced as an accompaniment. If, on the other hand, military discipline alone is required, this can easily be applied to a system of class gymnastics or free exercises, as shown in the schools of Germany.

After taking the most favorable view possible of military drill as a physical exercise, we are led to conclude that its constrained positions and closely localized movements do not afford the essential requisites for developing the muscles and improving the respiration and circulation, and thereby improving the general health and condition of the system. We must further conclude that in case of any malformation, local weakness or constitutional debility, the drill tends, by its strain upon the nerves and prolonged tension on the muscles to increase the defects rather than to relieve them.

Finally, if the ultimate object of the drill was to prepare young men for the life and duties of a soldier, we should be forced to conclude that the drill itself would still be defective as a means of developing the chief requisites for men in that profession.

This defect, we are pleased to state, is recognized by the great military nations of Europe, and measures are taken to give all the recruits from three to twelve months' gymnastic training to develop them as *men*, before they are expected to conform to the requirements of the soldier.—*Boston Medical and Surgical Journal*.



The *British Medical Journal* tells of a scybalum so large that, in order to extract it, it was necessary to give the patient chloroform and apply Simpson's short forceps. The patient, a woman, suffered from delusions which appeared to be due directly to the intestinal accumulations.

HEALING UNDER BLOOD-CLOT.

One of the most interesting papers read at the last Congress of German Surgeons was by Schede, of Hamburg, in which he gave the results of his experience with a plan for securing the healing of wounds, which is diametrically opposed to the general idea in regard to the management of blood-clots. It is usual to regard these as among the most inauspicious of foreign bodies, and to regard their removal as indispensable to prompt and successful healing. Since the general use of antiseptics, it has been frequently observed that the presence of a clot may not do any harm; that, in fact, the clot may become organized. Observing this fact, Schede has boldly made use of the blood poured out into a variety of surgical wounds to secure a protecting covering, which has the advantage of doing away with the necessity for drainage or compression. In the operation of Phelps for club-foot—open division of all the contracted soft parts, down to and including the astragalo-scapoid ligament—he found that if he simply covered the gaping wound with a bridge of protective silk, placed over this a good antiseptic dressing, and secured fixation with plaster bandages, he could leave the wound to itself without concern; and that, after three or four weeks, there would be solid cicatrization, or only a short, narrow strip of granulation, or a little strip of leather-colored clot, still attached along the middle, as the sole remains of the large mass of blood which filled the wound immediately after the operation. In this way not only does the skin unite, but all the soft parts—muscles, tendons and ligaments—assume their normal functions. In manner similar to this, Schede found a very large number of operations to heal without mishap. Of these he gives a list comprising 241 operations, including 40 resections of joints, with 37 typical recoveries; one resection of a piece of the wall of the thorax as large as the palm of the hand, with typical healing; 18 operations in which he chiselled out tuberculous foci in bone, with free opening of the joint, all with typical healing; 29 cases of removal of necrosed bone, with 27 typical recoveries; 20 open operations for club-foot, all with typical healing; 10 operations of scraping off of fungous granulations of the sheaths of tendons, with suppuration in only 2 cases; 24 cases of removal of tumors, with slight suppuration in

only two. In one case he saw a large blood-clot become organized in the lacerated brain, after a severe complicated fracture of the skull ; and once, in a fracture of the elbow-joint, in which he had to make a deep incision into the joint, to relieve tension, the wound being about nine inches long and three inches wide, the blood-clot remained in place for over three weeks, until the fracture was consolidated.

The method pursued in securing these extraordinary results was, where possible, to employ Esmarch's bandage, to observe the most scrupulous asepsis, and to remove every portion of diseased tissue. Large wounds were closed with sutures, placed at such intervals as to leave only one or two openings about half an inch long, to permit the escape of superfluous blood into the dressing. In some cases a counter-opening was made for this purpose. Schede found that the skin united well over considerable cavities, such, for example, as are left after an operation for necrosis, and that unsutured wounds, like that after Phelps's operation for club-foot, healed equally well. No drainage-tube was used. The wound was covered with a piece of protective for two purposes : first, to secure complete filling of the wound with the blood-clot, and second, to keep this moist by preventing its absorption by the dressings, which were only intended to absorb the excess of blood. Over all was placed a thick anti-septic dressing of sublimate gauze and cotton, and sublimate moss bags. It is important, in order to secure the filling of the wound with blood, that when a counter-opening is made, it shall be at the highest point, instead of, as usual, at the lowest. In regard to the control of hemorrhage, when no large vessels were wounded, and the bleeding was not profuse, no account was taken of it. Arteries of any size were ligated, of course, and the filling of the wound was left to the parenchymatous bleeding.

Perfect asepsis is indispensable to Schede's method. If any doubt exists in regard to having secured it, he advises filling the wound with antiseptic material, such as iodoform gauze, or sublimate gauze, or bismuth, and leaving it till granulation is established, after which the filling of the wound with blood can be secured by shaving off the granulations, and the cure will be hastened materially.

Schede is convinced that this method will soon secure many friends, because of its great convenience, and because it secures the safest, quickest and most perfect healing, and often the most perfect

functional results. The knowledge of his success will go far to fulfil this expectation, which will be aided by reflection upon facts which must have been observed by many a surgeon who has been already compelled to act as he has done without any well-defined purpose, such as prompted Schede to adopt and recommend this as a general method; for which reason it may well be called by the just and convenient name of "Schede's method."—*Medical News*.

ANTIPYRIN AS AN ANALGESIC IN HEADACHE.

Dr. John Blake White, Physician to Charity Hospital, New York, sends us the following :

"The high road to truth is the knowledge of facts, and well is it for searchers after truth when facts can be ascertained and carefully recorded.

"Symptoms are the alphabet, cases the language, of disease, and that physician subserves his profession who carefully records his experience.

"During the past two years I have abundantly tested the therapeutic value of the drug known as antipyrin in various forms of headache. The prompt relief obtained through its use compels me to accord to it a high rank among our medical resources. I have already called attention (*Medical News*, July 10, 1886) to the potent antipyretic power possessed by this remedy in the management of various forms of fever, and have observed that, after its administration, the urgent symptom of Headache, so uniformly present in these cases, was soon controlled.

Antipyrin undoubtedly possesses bradycrotic properties in a high degree, as the pulse is notably softened and moderated in frequency soon after a proper dose of it has been taken. It produces some somatic change favorable to a reduction of the pulse in cases of fever, and so exerts a calming influence upon the vaso-motor system. The capillaries, through its agency, doubtless dilate, and local congestions are dissipated, as the relieved patient usually sinks into a refreshing repose soon after its exhibition. In the course of large experience with antipyrin I have found that, when administered in

masterful doses, it not only promptly relieves the symptom of head ache whenever present, whether resulting from disordered digestion, disturbance of the menstrual functions, loss of sleep, undue mental effort, or even that associated with dreaded uræmia, but also possesses reliable prophylactic virtues against recurrent attacks of cranial neuralgia. So confident am I of the power of this remedy to disappoint neuralgic headache when imminent, that I have instructed many patients who are liable to such visitations, to keep in readiness and take a dose of antipyrin as soon as they have premonition of its recurrence, and all so far testify in favor of its efficacy.

"The value of this remedy in the above respect has not only been tested in my hospital and private practice, but I also record the fact that it has proved successful in the hands of professional friends, upon whom I had urged its employment for the relief of neuralgic affections of the head and face. I have been singularly impressed with the promptness of relief which often followed the administration of even a single dose of fifteen grains of the antipyrin. The grateful relief from headache usually ensues within half an hour after the drug is taken. A sense of drowsiness ordinarily supervenes, followed by a brief, but sufficient slumber, and the patient awakens quite relieved of this distressing symptom. I have never yet seen the sleep-disposing properties of antipyrin alluded to by any other observer, although this effect seldom fails to ensue when a full dose such as I have named has been taken."—*Medical Record*.

DREAMS OF THE BLIND.

Dr. Joseph Jastrow, in the annual meeting of the American Association for the Advancement of Science (*Medical News*, Philad.) says :

"Almost all dreams of normal persons are sight dreams, and a dream is often spoken of as a vision. The blind are deprived of this most important sense ; but if they have not been born blind, they may remember enough of what they have seen to enable them to imagine how things look, and, when the imagination has free

play in sleep, to picture themselves as in full possession of all their senses. Physiologists would explain this by saying that during the years in which they saw, a certain part of the brain has become educated to receive and interpret all these messages which the eye sends, and that, when this part of the brain acts spontaneously in sleep, the person dreams of seeing. Such a portion of the brain would be called the sight-centre.

"If, now, we find out the latest age at which blindness may set in, and yet the person keeps on dreaming of seeing, we will find out the time it takes for this sight-centre to develop; for, of course, it is not present in the new-born infant. For this purpose about two hundred blind persons of both sexes were questioned at the institutions for the blind in Philadelphia and Baltimore, and it was found that those who became blind before their fifth year never dreamed of seeing; of those whose sight was lost between the fifth and the seventh year, some did and some did not see in their dreams; while all whose eyesight was destroyed after the seventh year had quite as vivid dream-visions as seeing people. The fifth to the seventh year is thus shown to be the critical period. This period corresponds with the age which authorities assign as the limit at which a child becoming deaf will also become dumb; and also with the age of one's earliest continuous memory of one's self.

"It is interesting to note that blind persons dream quite as frequently as people with normal sight, and that with those who do not see in their dreams, hearing plays the principal part. When dreaming of home, for instance, they will hear their father's voice or their sister's singing, and perhaps will feel the familiar objects in the room, and thus know they are at home. We, in such a case, would see it all."—*Medical News*.


A WISE PRECAUTION.—Before undertaking an autopsy, Dr. Clevenger recommends holding the hands over strong liquid ammonia, when the smarting which ensues will reveal all sensitive or abraded places that need a touch of caustic or other protection before beginning the examination.—*Medical News*.

EDITORIAL.

THE NORTH CAROLINA MEDICAL JOURNAL.

A MONTHLY JOURNAL OF MEDICINE AND SURGERY, PUBLISHED IN
WILMINGTON, N. C.

THOMAS F. WOOD, M. D., Wilmington, N. C.,	} Editors.
GEO. GILLETT THOMAS, M. D., “	

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DIPHTHERIA IN THE MIDLAND COUNTIES.

The causation of diphtheria is so involved in mystery, and the solution of this puzzle is so necessary to the stamping out of this mortal disease, that all facts bearing upon its life-history are of pregnant value, to be useful, sooner or later, in the labors of the etiologist.

We have had an opportunity of hearing a detailed account of the outbreak of the disease in the counties of Caswell, Orange, Chatham, and probably of Moore, Montgomery and Richmond, as well as Chesterfield, in South Carolina, from an intelligent physician, whose practice is in the region of the first three counties indicated.

The autumnal exhibition of the malady has been preceded for quite a number of years past by an outbreak of malarial fever of the remittent type, beginning in January and lasting until June. These cases of fever have occurred generally among adults, and were rarely fatal, being amenable, after variable periods, to the anti-periodic action of quinine and the general treatment known and accepted as necessary to the cure of malarial fever, that is, active purgation with mercurial cathartics, quinine in doses as indicated by the severity of the fever, diuretics and simple febrifuge medicines as the practitioner may elect. Food and stimulation, generally alcoholic, are studiously administered in all cases, and the convalescence, varying in length, ends, with few exceptions, in complete cure. In July and August, in the same neighborhood where these malarial fevers have prevailed, and often in the same families, there appear typical cases of typhoid fever, with a varying mortality, the climax of the fever being attained about the first or second week in August, and the decline reaching its maximum about the first of September. And this latter month ushers in the cases of diphtheria. No county superintendent of health, as far as we know, has carefully studied these interesting details, and our informant, a busy practitioner, had not the leisure to gather comparative statistics of cases and deaths; but he says that so great has been the mortality in the fall months for several years that the people in the region which we shall allude to more particularly, are accustomed to regard the appearance of the disease in the household as so sure a harbinger of death that they have in most instances ceased to apply to the physician for advice, depending rather upon the practice of the country grannies and ignorant quacks, more to have the appearance of doing something for the relief of the sick ones, than with any hope of obtaining a cure. To use the expressive words of our informant: "They generally send for a coffin and not for a doctor." This relation of the ravages of this much dreaded disease may seem overdrawn, but we have heard of its progress, we might almost say, its long funeral procession, for a series of years, and are convinced that there is much of startling truth in it. Now, the surprising fact in connection with all the history of disease, malarial, typhoid and diphtheritic, is that it occurs on a high, gravelly ridge, well watered, with fertile valleys on either side of it, and inhabited by small farmers. There is no account obtainable of the

accumulation of manure-heaps, or human ordure in quantities sufficient to account for the manifestation of disease, which we are reliably informed exists. These infected regions (if we may so speak of a country that, to the casual observer, would seem a region where only pure air and good health, its offspring, could exist) are peopled by small farmers, as we have said, all of them

The deserved popularity of this work is attested by the fact that the first edition was issued in 1880, that a second was demanded in three months, and that the others have followed them in rapid succession and been met by appreciative students always. The author says in his preface to this edition that he has sought to make it worthy of the approbation of his readers by increasing the practical resources of his work, devoting his attention chiefly to the clinical aspects of medicine, without overlooking the advances made in the scientific branch. To make his work complete, he has in preparation a volume to be devoted to a study of the "Principles of Medicine," making three in all; these are "Materia Medica" and the volume at present under notice, being well-known and received, and the third one indicated above soon to follow, to which the reputation of the author will insure a cordial reception. Our author, while accepting apparently the germ causation of disease, is prudent in his approbation of all of the theories of this newer school. The bacillus tuberculosis of Koch is not a universally admitted cause of phthisis, and, after a statement of the argument *pro* and *con*, in a concise way, he aptly remarks: "The attitude of the reflecting physician should be that of receptivity;" but warns against the conclusion that this parasitic nature of phthisis is approved.

The article on malarial fever is short, and contains nothing new. We hoped that we should find in this edition some of the author's careful study on the subject of malarial hæmaturia or hæmaglobinuria, as it has been variously styled. The subject is one of such great importance to physicians in latitudes where malaria abounds, that the newer works on practice of medicine will be carefully scanned for information on the subject.

This book, like the previous editions of the work, is the product of a master and an honored authority, and in its new form, with malaria, or the diptheria, the author can conscientiously endorse or the county superintendents to solve the cause, and the prompt report of the whole matter to the State Board of Health, that this

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This book, like the previous editions of the work, is the product of a master and an honored authority, and in its new form, with such of the latest ideas as the author can conscientiously endorse or present for consideration, continues to hold its place among the standard text-books on all matters included in it.

A MANUAL OF PRACTICAL THERAPEUTICS. By EDWARD JOHN WARING, M.D. Edited by DUDLEY W. BUXTON, M.D. Fourth Edition. P. Blakiston, Son & Co, Philadelphia, 1886.

This book, which was first issued for the use of medical officers of the British Army thirty-two years ago, has grown from the modest volume which was called a manual (a name which, though it has retained, is no longer applicable to it), into a work of standard authority. It is too well known now to require extended notice, and the profession always meets new editions of the author's work with welcome.

Long discussions of opposing views of the action of medicines are omitted, as well as a detailed account of their physiological effects, and these two points are well condensed into brief statements of accepted and well substantiated opinions on all articles of the materia medica which he presents. The introduction is a fair index to the author's style, being neither prolix nor so concise as to sacrifice clearness.

We note with pleasure the articles on arsenic and belladonna. A fair statement of the value of antipyrin is given, with its therapeutic indications.

The diastatic value of malt in salivary and pancreatic digestion, is well considered and forms a complete chapter or article when studied with the one on pepsin, which also includes pancreatin.

Opium and morphine, separately considered, are notable articles, and the study of quinine and salicylic acid is quite up to the best authorities and in a condensed and attractive form.

A copious index of diseases, with the drugs best recommended for their relief, and another one of drugs complete this volume.

A NOVEL OBSTETRICAL EXPEDIENT.—Dr. Shutsoff writes in *Russkaya Meditsina* of April, 1886, that he was called to see a woman who had been in labor five days. The pains had begun well, but had since ceased. Upon examination, he saw something black protruding from the anus, and a little pulling brought to light a sausage over seventeen inches long and fourteen inches in circumference. The pains now began again, and the woman was soon delivered of a dead child. Dr. Shutsoff found on inquiry that the sausage had been introduced on the recommendation of an old woman of the neighborhood in order to insure the birth of the child by the normal passage. This was probably the old wife's best attempt at supporting the perineum.—*Medical News*.

CURRENT LITERATURE.

TRIPLE CONTAGION OF TUBERCULOSIS—FROM MAN TO MAN, FROM MAN TO FOWLS, AND FROM FOWLS TO MAN.

Dr. de Lamailleur publishes, in the *Gazette Médicale de Paris*, the following interesting facts: The little village of C. is a most healthy spot, being about 2,000 feet above the level of the sea. Epidemics are there unknown, and the inhabitants of this village generally die of old age or pneumonia. In 1872 a young man who had contracted bronchitis whilst a prisoner in Germany during the war, settled down in this village. He married a strong, healthy girl; soon afterwards he began to spit blood, and died of consumption two months after the birth of a son, and within a year of his marriage. Soon after his death his wife, who had nursed him, had bronchitis, which became chronic, and in a little while tuberculosis of the lungs was manifested. The child had successive attacks of bronchitis, and rapidly developed consumption. Cavities formed in the woman's lungs, and she expectorated abundantly. A short time ago the physician attending her was called to a young woman in the same village who showed evident signs of pulmonary phthisis. The house was at some distance from that of the first female patient. The second patient was a woman, aged 29, and of a robust constitution. A careful examination revealed that she rarely went to the house of her neighbor, who had contracted consumption, and never ate or slept there, but that she had eaten the flesh of eleven fowls which had died at her invalid neighbor's during the space of four months. She had eaten them very underdone, believing that they were most nourishing when but slightly cooked. It was discovered that these fowls had swallowed some of the sputa expectorated by the first patient. The birds had been seen to collect round her whenever she coughed. On making a necropsy of one of the fowls which had just died, it was found that the intestines and liver were filled with tubercles. The fowl had become very emaciated, and could hardly move; the purulent liquid found in the tubercles contained in the liver was filled with bacilli tuber-

culosis. It was probable that the other birds had perished from the same cause. These fowls must, therefore, have been the means of conveying contagion to the second woman who had eaten them. In this case there is the triple contagion of tuberculosis. (1) From man to man. (2) From men to animals. (3) From animals to men. Contagion from man to man is already a scientific fact. Contagion from men to animals had been admitted by many writers, but others have stated that certain animals, amongst which are fowls, could not be inoculated. This case shows clearly that fowls are as liable to contract tuberculosis as other animals, such as cats and dogs. Contagion from animals to men is clearly demonstrated in this case. Up to this time the only known vehicle of contagion was cow's milk; now it is shown that the bacillus can also be carried through fowls. It is important, then, to pay great attention to the health of fowls, destined for food, and it would be worth while to find out how soon after the fowl has begun to suffer from tuberculosis it can infect those eating it, and also how much cooking will destroy the bacilli.—*British Medical Journal*.

SUBLIMATE INJECTIONS IN GONORRHOICAL CYSTITIS.

The history of an obstinate case of gleet and cystitis is given in *El Dictamen* by Senor Garcia Andradas, which, after being treated unsuccessfully by means of injections of nitrate of silver, yielded very quickly to injections of corrosive sublimate. The patient, who was a river fisherman, contracted gonorrhœa, which was treated for a month with balsams and astringent injections. The discharge then became serous, and exquisitely painful vesical tenesmus supervened, the calls to urinate being so frequent as to give the man no rest. An attempt to pass an instrument occasioned the greatest agony when it came in contact with the prostatic portion of the urethra. The diagnosis made was that of acute prostatitis consequent on gonorrhœa, and so the local application of a sublimate solution appeared to be the most rational treatment, as it had in the author's hands proved very beneficial in cases of subacute cystitis due to the same cause; but it was thought well to try first

Guyon's treatment. With great difficulty, owing to the extreme sensitiveness of the urethra, an elastic catheter was passed to the prostatic portion, and 10 grammes of a 1 per cent. solution of nitrate of silver injected. A few minutes afterwards urine was passed with great pain, so a warm bath and an opiate were ordered, which gave only temporary relief, the opium having to be repeated at night. The next day the patient's condition was the same as it had been before the injection. Three or four days afterwards a similar injection was given, with no better result. Four days later, as there was no improvement, the use of sublimate injections was commenced. The catheter was passed as far as the prostate, and 45 grammes of a 2 per mille solution of sublimate in warm water were injected. This the patient was compelled to retain for three minutes; the subsequent micturition was very painful, but at night he was able to rest and retain his urine for three hours. The next day the urine was less turbid, and it was voided less frequently. His condition continued to improve for three days, when a second sublimate injection was given of double the quantity of solution. This occasioned some pain, but it quickly passed off, and the patient was able to rest. In four days' time he requested to be discharged, as his urine was clear and he had no pain on micturition. Thus, the author remarks, two injections sufficed to cure completely an affection usually most obnoxious to treatment of an ordinary kind. The superiority of sublimate injections has shown itself in several cases of a somewhat analogous character in which he has employed it. These he proposes to publish and discuss on some future occasion.—*Lancet*, August 21, 1886.

A SIMPLE METHOD OF REMOVING WENS.

In the *Northwestern Lancet*, July 15, 1886, Dr. Lauenstein's simple method of removing sebaceous cysts of the scalp is described. The skin over large wens of the scalp is often so thin that, in the commonly practiced method of extirpation with a free incision over the convexity of the tumor, the sac is often ruptured in spite of all care, and through collapse of the walls of the sac the separation of the skin is rendered difficult and protracted in a disagreeable manner.

This accident, unless it is a case of inflamed wen, may be avoided with certainty by a simple expedient, which has recommended itself to him on account of the rapidity of its execution, and which will be readily appreciated by those to whom it often happens to be pressed for time, or who, living in the country, are obliged to operate without skilled assistants. After shaving and cleaning the the neighborhood of the wen, he makes a radial cut, about one inch long, through the skin where it is separated from the capsule of the wen, for instance, on the back of the head at the lowest point of the base of the tumor ; through this slit he introduces the slender handle of the scalpel used, or a similar instrument, between the skin and sac, more or less deeply, according to the size of the tumor. This is very easily accomplished, and then he makes several sweeping movements of the scalpel-handle to the right and left, thereby separating with ease the sac from the skin. The elasticity of the skin allows almost the whole circumference of the wen to be separated in this way in a few seconds. He then cuts, with one snip of the scissors, the skin over the crown of the tumor as far back as is necessary, and shells it out whole from its seat. There is often no bleeding, because of the division of the vessels of the sac by a blunt instrument. The rest of the treatment—sutures, drainage—is not affected by this procedure ; nevertheless, he adds that any crushing or tearing of the edges of the wound is completely avoided.—*Medical and Surgical Reporter*.

BRIGHT'S DISEASE AND PSEUDO-BRIGHT'S.

Professor Mariano Semmola, of Naples, recently read before the Académie de Médecine of Paris a paper upon the pathology and treatment of Bright's disease which is likely to attract much attention.

The objects of the communication are announced categorically as follows :

1. The control of preceding researches by the author and an explanation of points that have been criticised.
2. The presentation of new experimental studies of Bright's disease.

3. Exhibition of the histological changes in the skin in Bright's disease.

4. The demonstration by clinical and experimental researches of the unicity and constant character of Bright's disease.

5. The indication of some errors previously held as regards treatment.

True Bright's disease, according to Semmola, is a well-defined affection, not of the kidney's primarily, but of nutrition, having the following characters :

1. A peculiar etiology, viz : the excessively slow action of humid cold upon the skin.

2. There is a progressive defect reaching to complete abolition of the functions of the skin, due to a progressive ischæmia, with atrophy of the sweat glands, of the Malpighian layer, with a connective-tissue proliferation of the derm.

3. There is a chemico-molecular alteration in the ingested albuminoids, an alteration characterized by a morbid diffusibility, and, in consequence, lack of power to be assimilated. They are, therefore, eliminated by the emunctories of the body, and, of course, mainly by the kidneys.

4. There is a progressive lessening in the combustion of albuminoids, and, in consequence, a lessened excretion daily of urea, and a lessened amount in the blood.

5. There is a subcutaneous infiltration of serum, beginning in the face, and not standing in any relation with hydræmia.

6. There is a very characteristic cachexia, which is not dependent on the loss of albumen, but on a profound disturbance in assimilation.

7. There is a *secondary* development, very slowly, of an inflammatory process in the two kidneys, producing in these organs the characteristic histological changes of diffuse nephritis, of which the typical form is constituted by the large white kidney.

Professor Semmola attacks the prevalent views, which uphold the clinical unity of Bright's disease, but admits an anatomical plurality so far as the kidneys are concerned.

There is only one true *Maladie de Bright* ; but there are sharply characterized forms of what are called "pseudo-Bright's disease." These are the forms produced by syphilis, alcohol, lead, gout, etc.

Professor Semmola thinks it is never difficult to distinguish be-

tween true and pseudo-Bright's, as, for example, by the absence of œdema until late; in nephritis of arterial origin; by the small amount of albumin lost through gouty kidneys, etc.

The author insists, then, that the true *Maladie de Bright* is a constant morbid type, marked by a definite and peculiar etiology, evolution, anatomy, nosography and treatment.

It is upon this point of treatment that Semmola lays much stress. The fundamental therapeutical indications are :

1. To give the patients a food which is the most assimilable possible.
2. To excite methodically the functions of the skin.
3. To favor by every means possible the assimilation and combustion of the albuminoids.

To carry out these indications Semmola recommends, first, an exclusively milk diet ; second, methodical and repeated dry friction of the skin, massage, warm douches and baths ; third, residence in a warm, dry and constant temperature ; fourth, the use of iodide and chloride of sodium, increasing it to the point of intolerance ; fifth, if, after two or three weeks, the albumin is still present, Semmola gives, in place of the iodide of sodium, the phosphate of soda, or small repeated doses of hypophosphite of soda or of iron, increasing the dose until three or four grammes are taken daily ; sixth, the use of inhalations of oxygen ; seventh, the abandonment entirely of astringents.—*Medical Record*.

PRELIMINARY EDUCATION OF MEDICAL STUDENTS.

In its educational number, dated September 11th, the *British Medical Journal* says :

"The theory of education has played a considerable part in all systems of philosophy since that of Plato, and of late has received even more general attention than hitherto ; but, though fashions have often changed, yet few stable conclusions have been reached, and there is much ground left as yet for eager debate. During the last few generations the rapid growth of knowledge has changed the conditions, and made such an encyclopædic education as Milton

sketched out more than two centuries ago quite too extensive to be possible now-a-days; nevertheless, the practice of laying some broad foundation of non-professional training to professional knowledge gains ground and wins approval on all sides. The subject-matter of the medical profession is growing more difficult, or rather we realize its many difficulties more fully, and feel more bound to attempt to train its younger members to grapple with them; the profession, moreover, stands, on the whole, better in credit with its bankers and with the world, and is inclined to think it worth while to use some of its opportunities wisely enough in obtaining a more thorough general education.

“The character of the general education to be sought after is not so easily determinable. After some warm controversy between the partizans of the old knowledge and the new as to the subjects to be taught, most of the best judges have arrived at a compromise, which one of them happily expresses by saying that science must come in, and language must not go out. More widely trained teachers, better schools, or ‘modern school’ departments are necessary to carry out such a compromise, and are being slowly, but steadily, manufactured to meet the demand. But the teacher’s profession, like most others that need skill and knowledge, is, as a profession, very conservative, and does not easily adapt itself to new molds; and in this matter the public has not clear enough perception of what it wants to be able to hurry on the supply. It is gradually becoming plain that we need not imagine all the advantages of a training in language to be bound up with Latin and Greek. The grammar of the classical languages may be the most reasonable and complete, but it is not the only grammar; and, at the outset of an education in language in England, it is much more rational to begin by teaching grammar (for, indeed, there is such a thing, and it is well worth study) to pupils who have probably gained—they know not how—a considerable volubility in English sentences. It probably does not alter their speech much, but it may serve to introduce them to system, and to show them that it is applicable to the most familiar things, namely, the words of daily life. So, too, any of the simpler branches of the sciences of observation of the outside world of nature may serve as the introduction to another field of system. Both paths lead on to abundant and profitable learning; the study of the English grammar leads

on to English literature, of which many of the treasures are now habitually passed by; the elementary science to the great generalizations of natural science which have had so strong an influence on our age.

"It is, fortunately, not so often the case now as it used to be that purely professional education is begun in boyhood. There are not so many country apprenticeships served, not so many entrances made at medical schools before the age of seventeen, but more cases where a non-professional education has been allowed to run on to twenty-one, or even later, and the paths of barrister, doctor and divine have lain together till they have come of age. Those who have intended throughout to seek medicine as a profession, and have had any capital to invest in themselves, have found a public school and university career a profitable as well as a pleasant investment.

"The eagerness with which university degrees are sought shows that the public like to see something that they may fancy is evidence of a university life. The elder English universities (and of them Cambridge most readily and freely) have opened their doors and arranged their teaching so as to make themselves comfortable homes of learning for medicine as well as the other arts and sciences. If a university is doing its duty, it should make itself a focus of all kinds of knowledge, and always be able to hold up before its pupils the dry flame of truth, the pursuit of knowledge for its own sake, and offer thus what may prove to be one of the very few chances in life of coming into contact with true student habits that have for some people a rare fascination.

"The education of the chief public schools, as it stands at the present, may perhaps be thought too apt to lead along the old-established paths of learning exclusively. That, however, is being quickly altered, even at the most conservative schools. A boy's classical education may fade easily, but it is no small addition to the knowledge of human nature and capacity to have gained some dim idea of the genius of Hannibal and the personality of Socrates, of the tale of Troy and the rhythm of Virgil; and what remains of any early education most deeply fixed is not mainly the facts and figures—whether they be of the natural sciences, or of grammar and language, or of the history of the world—but some notions, vague, perhaps, but strong, of the extent of knowledge in this direction or that, and some

generalizations that it may have cost the world centuries to supply, and along with these some love of knowledge, or at least some respect for it, based most probably on the recollection of the trouble that was necessary to acquire some small position of it.

"But we cannot be satisfied with only a strong "bookmindedness," as Wordsworth called it; we want a practical education also, for we have to deal living human beings, and it is of the first importance that as many lessons as possible should be learned of the varieties of human nature; and of such lessons the life at a public school and a university, apart from the knowledge taught there, supplies a noteworthy abundance, and affords a large contribution to one form of the *tactus eruditus* which the world specially appreciates and admires, and calls, in short, tact."—*New York Medical Journal*.

ERGOT AFTER LABOR.

"Ergot after Labor" was the title of a paper by Dr. John Goodman, of Louisville, Kentucky, which, in his absence, was read by the secretary at the annual meeting of the American Gynæcological Society, held at Baltimore in September. The administration of a full dose of ergot immediately after the completion of labor had become a general practice. It had been alleged that it promoted involution, prevented after-pains, and tended to prevent post-partum hæmorrhage. Some years ago the author administered a full dose of ergot after a perfectly normal labor. In fifteen minutes severe pain appeared and increased. The tenderness in the uterus continued for a week. There was no milk, and the patient, previously prolific, never again conceived. The trouble was attributed to inflammation of the muscular coat of the uterus, produced by the action of the ergot. In a second case ergot was given after a forceps delivery. On the seventh day the patient had a chill, followed by a temperature of 104°. The next day a clot was washed out of the uterus, and the temperature fell to 99°, well-marked septicæmia developed, and the patient died a week later. In this case the retention of the clot was attributed to the spasmodic contraction of the uterus preventing its escape. The author had seen other cases in which injurious effects were produced

by the administration of ergot. He maintained that ergot did not assist involution, which was a natural process, and required a certain length of time for its completion. That ergot was capable of arresting after-pains, could not be doubted, but it did so by exciting a mode of muscular action at variance with all physiological laws. After-pains were conservative, and it was better to wait until they became of abnormal severity before resorting to treatment. Ergot was capable of preventing hæmorrhage, but its use was attended with such dangers that it should be employed only under exceptional circumstances. It should be an inviolable rule not to give ergot at the close of the third stage of labor, unless hæmorrhage was imminent. It should then be used by hypodermic injection.

The President said that he was preparing a paper in which he protested against the routine practice of giving ergot after labor.

Dr. Goodell suggested that, since the author of the paper had stated that it was only since last May that he had given up the use of ergot he had not had sufficient time to form such positive opinions. In the first case related there must have been a fibroid tumor. The second case was a clear instance of septicæmia. He did not think that after-pains were conservative. As a rule, they were not seen in primiparæ. These pains were, in great measure, the result of weakness induced by civilization. Not every woman who had given birth to a child needed ergot, but there were those who did. In twenty-five hundred cases of labor, he had always given ergot after the completion of labor, and he had never seen any harm from its use. He did not believe that one dose of ergot had much effect in favoring involution. Involution was the result of fatty degeneration, and the greater the contraction the greater the interference with the circulation and the more rapidly should this change take place. He had used ergot to prevent hæmorrhage and to prevent the absorption of septic matter. Since the introduction of antiseptics, which should be used in every case of labor, whether in public or in private, the use of ergot to prevent septic infection was not so important, but it did not do the harm which had been mentioned.

Dr. Engelmann held in the main the views which the president had expressed.

Dr. Theophilus Parvin, of Philadelphia, thought that the effect of ergot varied with the dose. A small dose simply increased the normal uterine contractions. He must object to the assertion that ergot

should never be given before the completion of labor. Statistics showed that those who were most successful in the treatment of placenta prævia were the men who used ergot. Again, in multipara, with the os dilated, where a sudden rupture of the membranes took place with a cessation of labor, fifteen or twenty grains of ergot caused a rapid completion of the labor. After a protracted labor there was a weariness of the uterus, with a failure to enter upon the normal retraction, which prevented hæmorrhage and tended to promote involution. If we assisted nature in the expulsion of the placenta, why should we not assist her in securing normal retraction of the uterus after the completion of labor? In some experiments which he had made at the Philadelphia Hospital to determine the rapidity of involution of the uterus in women who had been given ergot and in those who had not, uterine involution had seemed to take place more rapidly in the former.

Dr. A. J. Skene, of Brooklyn, did not think that in the cases reported the ergot had had anything to do with the production of the effects. All rational men used ergot like any other remedy, when it was necessary or might become necessary. If there was any doubt whether or not it was needed, it was better to give the patient the benefit of the doubt.—*New York Medical Journal*.

A GREAT MEDICAL EDITOR DEAD.

The medical profession throughout the world has been accustomed for years to recognize the *Lancet* as one of the greatest medical journals. By years of toil, battling and endeavor, it succeeded, many years ago, in reaching that pinnacle of editorial fame to which the ambition of the elder Wakley always aspired, and there, through the ability and devotion of the son of the great founder, it has continued to perch. The elder Wakley lived to see his creature a creator of sentiment and a power in the medical world, and then in the fulness of time he laid down the pen, to be taken up and wielded with equal vigor by his son. For more than a quarter of a century Dr. James G. Wakley has been the controlling spirit of the great *Lancet*, and now he, too, has passed from among us. It may be remarked as a

somewhat curious coincidence that the great champion of the sword of America (Grant) and the great champion of the pen of England (Wakley), both were finally conquered by the same insidious and relentless foe, cancer of the tongue. Let us hope that Wakley has trained up some one to properly fill his vacant chair.—*Medical and Surgical Reporter*.

MEMORIZING DOSES.

Dr. G. A. Wiggins, of Philadelphia (*Medical World*, August, 1886), gives some general rules, with their exceptions, which are thoroughly reliable:

1. The dose of all infusions is 1 to 2 ounces, except infusion of digitalis, which is 2 to 4 drachms.
 2. All poisonous tinctures 5 to 20 minims, except tincture of aconite, which is 1 to 5.
 3. All wines from $\frac{1}{2}$ to 1 fluid drachm, except wine of opium, which is 5 to 15 minims.
 4. All poisonous solid extracts you can give $\frac{1}{2}$ grain, except extract of calabar bean, which is 16 to $\frac{1}{2}$ grain.
 5. All dilute acids from 5 to 20 minims, except dilute hydro-cyanic acid, which is 2 to 8 minims.
 6. All aquæ from 1 to 2 ounces, except aqua lauro-cerasus and aqua ammonia, which are 10 to 30 minims.
 7. Of all medicated syrups you can give 1 drachm.
 8. All mixtures from $\frac{1}{2}$ to 1 fluid ounce.
 9. All spirits from $\frac{1}{2}$ to 1 fluid drachm.
 10. All essential oils from 1 to 5 minims.—*Medical and Surgical Reporter*.
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DR. LAWSON TAIT.—The honorary degree of M.D. has been conferred upon Mr. Tait by the University of the City of New York. We wish for Dr. Tait the same marvellous success which has attended the labors of plain Mr. Tait. Dr. Tait's father was Friend Tait, a worthy quaker.—*Maryland Medical Journal*.

NOTES.

THE EDITOR OF THE "LANCET'S" CONFESSION OF FAITH.—Some time before his death the late Dr. James G. Wakley made a special request that the following confession of faith should be introduced into any notice of his life which might appear in the pages of the *Lancet*: "Feeling my deep responsibility to God for the position in which, in His providence, He has placed me, I desire to testify to the comfort derived during my sickness from a lively faith in our Lord Jesus Christ, and that I die in the sure hope of a glorious resurrection."—*Medical Record*.

THE AMOUNT OF GREEK NEEDED BY MEDICAL STUDENTS.—At the Berlin Congress of German Naturalists and Physicians, Professor Schwalbe, director of a Berlin *Real-Gymnasium*, in speaking of the knowledge of Greek necessary for the understanding of medical and scientific terms, said that he was preparing a Greek primer for equipping students with that knowledge. After a careful consideration of the subject, he had come to the conclusion that for the purpose in question it was sufficient to know about one hundred Greek nouns, twenty to twenty-five adjectives, fifteen to twenty pronouns, fifty verbs, the cardinal numbers, and a few adverbs and particles. All this could easily be acquired during the first semester at the gymnasium.—*Medical Record*.

ADVICE TO PHYSICIANS CONTEMPLATING POST-GRADUATE STUDY IN NEW YORK.—The New York correspondent of the *Mississippi Valley Medical Monthly* writes: "Permit me to offer a few words of advice to those of your readers who may contemplate a visit to New York. Briefly it is this: Make up your mind before you leave home what special branch or branches you wish to study up, and when you get here devote your entire time and energy to obtaining just what you want. This advice is based on my own and the experience of a great many of my fellow-students here. When I first came here I was led hither and thither by things that attracted me, to the detriment of the branches which I wished to master. No difficulty will be found in getting what is desired. The doctors of New York are eminently a teaching class, and if one cannot teach you what you want, he is sure to know of some good man who can."—*Medical Record*.

NEW OPERATION FOR PTERYGIUM.—On the 16th of June, with the assistance of Dr. Crofford, the eye was cocaineized. A speculum was introduced to hold the lids apart; the entire breadth of the pterygium was grasped with fixation forceps, and with a delicate knife the growth was transixed near the corneal margin, and the instrument which I now show you (somewhat resembling a strabismus hook) was introduced into the cut, and traction was made so as to pull or tear the growth from the corneal attachments. This pulls the pterygium bodily from its bed, and leaves the cornea perfectly clear, which is explained on anatomical grounds by microscopists who have learned that the under surface of the pterygium is covered by a layer of endothelium. The conjunctival portion of the pterygium was excised in the usual manner, and the edges of the wound were united with sutures.—*Dr. Minor in Mississippi Valley Medical Monthly.*

PEN PICTURE OF LAWSON TAIT.—Mr. Tait is a much younger man than I had expected to find him. He is just forty-one years of age; he is about five feet nine inches in height, and weighs, I should say, two hundred and twenty-five pounds. His legs are short, body quite long and large; hands short and fat, but how nimble and dextrous! His hair is dark brown, slightly sprinkled with gray, and he wears it quite long. He has a full face, with short side-whiskers. His voice is pleasant and manly, and his whole make-up impresses you as belonging to a person of immense force. His manners are pleasing, and to friends cordial. I should say he was a good lasting hater. He is a native of Edinburgh, and was a pupil and very intimate friend of the late Sir James Simpson, to whose pictures he bears a striking resemblance. He does most of his operations before breakfast, and seems to be in a big rush during all the day.—*Letter from W. O. Roberts in the American Practitioner and News.*

THE TREATMENT OF HYSTERICAL ATTACKS.—Dr. Albert Ruault gives a simple method which he has found very efficacious in controlling an hysterical fit. It consists in making firm and constant pressure over the supraorbital nerve at its point of emergence from the supraorbital foramen. The head is held securely between the palms of the hands, while pressure is made over the nerve on each

side with the thumbs. The writer says that the patients under this treatment first contract the facial muscles with an expression of pain, cry out, and then take several quick successive inspirations. The breath is held for a few seconds, and then, with a long expiration, the muscles relax and the attack is ended. The pressure of the thumb must now be relaxed, otherwise it may have the opposite effect and excite another convulsion. Pressure over any nerve-trunk at the point where it becomes superficial will have the same effect; but the supraorbital nerves are chosen because of their convenient situation.—*France Médicale*.

ANACHARIS ALSINASTRUM.—Dr. Brandes has recently declared the valuable properties of the anacharis alsinastrum, a water-plant which has hitherto been considered as a nuisance. He says that in the district where he lives, and where malaria and diarrhœa yearly appeared in a sporadic or epidemic form, those diseases have gradually decreased since the anacharis alsinastrum began to infest the neighboring rivers and marshes, and for four years have totally disappeared. He proposes that the plant, which came originally from Canada, should be planted in marshy districts, with the view of checking malaria; and the experiment, in view of the evidence adduced in the article under notice, is certainly deserving of consideration.—*Medical News*.

[Has not reached this neighborhood, but *A. Canadensis* is found in Cherokee county, Valley river.—T. F. W.]

DEATH OF JAMES G. WAKLEY, M.D.—Dr. James G. Wakley, editor of the *Lancet*, London, England, died August 30, of cancer of the tongue and fauces, at Heathlands Park, near Chertsey, England. He was the youngest son of the late Thomas Wakley, founder of the *Lancet*, member of Parliament for Finsbury, and coroner for Middlesex, and is survived by his brothers, Thomas H. and H. Membury Wakley, having been associated with the former as half proprietor of the *Lancet*. He became a member of the Royal College of Surgeons of England in 1849, and was graduated Doctor of Medicine at King's College, Aberdeen, in 1852. At his father's death, in 1862, he became editor of the *Lancet*, the duties of which position he discharged for nearly twenty-five years, continuing, in spite of much recent suffering, active in his work up to last Easter. Dr. Wakley proved himself a worthy successor in

every way to his distinguished father. Through his painstaking labor, his journalistic skill and his conscientious devotion to the best ideals in medical journalism, he has kept the *Lancet* against all rivals in the high position won for it by its founder.—*Medical Record*.

BISMUTH SALICYLATE.—Solger recommends salicylate of bismuth very highly in chronic catarrh of the bowels, also in the diarrhœa in the last stages of tuberculosis. In reflex neurosis, due to chronic intestinal affections impotency and epileptic imbecility, due to the same cause, Solger obtained excellent results from its use. It is best administered in cachets, and is given in doses of 0.6 grammes, repeated every three hours.—*American Journal of Pharmacy*.

TWO NEW REACTIONS FOR MORPHINE.—1. If 1 milligram of powdered morphine is intimately mixed with 8 drops of concentrated sulphuric acid and a small particle of arseniate of potassium, and the whole is heated in a capsule (agitating constantly) until acid vapors are evolved a beautiful blue-violet color is produced; by continuing the heat the color changes to a dark-brown red. If water is cautiously added, a reddish color, turning green when more water is added, results. If the liquid is shaken with chloroform, a beautiful violet color is produced, if shaken with ether, a violet-red color, the bottom layer turning brown. 2. If morphine is rubbed up with about 8 drops of concentrated sulphuric acid and a drop of a solution of chlorate of potassium 1.50, a persistent grass-green coloration, having a pale rose-red margin, is produced.—*American Journal of Pharmacy*.

ON CONTUSION AS A DETERMINING CAUSE OF NEOPLASMS.—We all know how much the question of the rôle of contusion has been discussed in the development of cancer and tumors in general. For my part, I have always admitted this cause, not only for the malignant new growths, but also for the most benign, such as cysts, lipoma, etc. One of my internes, M. Le Clerc, has, under my directions, accumulated a quantity of material, and has prepared a thesis giving the actual state of our knowledge upon this subject. The following are the conclusions reached in his thesis. 1st. Contusion has an undeniable rôle in the etiology of neoplasms. 2d. It acts by exaggerating the reparative process going on in the centre

of the tissues, and by creating in the wounded part a *locus minoris resistentiæ*. 3d. It is, however, only a localized cause, and cannot produce by itself a neoplasm; to do so it needs a diathesis that we will call neoplastic, which is secondary, and depends upon arthritism.—*Prof. Verneuil in Medical Times.*

DR. BROADBEND, of London, in a recent address before the British Medical Association, warns against the prolonged use of colchicum in gouty subjects, on account, chiefly, of the increased arterial tension it induces. After the drug has been given for any prolonged period, it should be suspended, and the system cleared out by the administration of alkalies.—*American Druggist.*

THE effects following occasionally the instillation of cocaine into the eye, leaving opaque spots upon the cornea, seems in a number of cases to be probably due to the use of corrosive sublimate as an antiseptic at the same time that the cocaine is exhibited for its anæsthetic and midratic effect. "At least," says the *British Medical Journal*, "the most of the cases reported in which these opacities have been noticed come from institutions in which the use of corrosive sublimate is routine practice. It is yet a matter of conjecture to what this effect is due, but it is probable that the absorbing powers of the cornea are increased by the cocaine, and the interstitial changes effected by this drug alone must be carefully studied in order to separate these effects from those of its use combined with other medicines.

THE AMERICAN LANCET thinks physicians would very often save the health and obtain the gratitude of young people about to marry by advising them against the wedding tours that are now so fashionable. "Marriage is one of the epochs of life. It is peculiarly related to the physical well-being of both parties and to the unborn." Take the young wife who has just finished a period of exhausting excitement in arranging for the event, and to this is added the excitement incident to her entrance upon entirely new physical relations. The hurry, discomfort and weariness of railroad travel, and the strain upon the nervous system following visits to new scenes and exposures to extremes of heat and cold, all make it desirable that this portion of the new life of the married couple should be spent in repose and seclusion. These ideas will commend themselves by the worth they contain.

THE smell of rotting Irish potatoes is due to the action of *Bacterium termo*, although two other fungi aid in the destruction.—*E. W. Claypole, in Bulletin Torrey Bot. Clube.*

HYDROCHLORATE OF CAFFEINE has been observed by Dr. Terrier to possess an anæsthetic action almost identical with that of cocaine.—*Journal de Mèd. de Paris.*

SALICYLATE OF COCAINE in doses of 6 grains, given hypodermatically at the commencement of an attack of asthma nervosum has succeeded in cutting it short. Subsequent and smaller ones occasionally have been necessary to produce the desired relief.

DR. CRESSWELL HEWETT, of Lincoln's-iron-Fields, claims to have discovered a method of making quinine synthetically. A sample of his manufactured article has been submitted to Messrs. Howard & Sons, quinine manufacturers (London correspondence *American Practitioner and News*, Louisville, Ky.), and they expressed surprise at the result of their analysis, the sample being equal to the best in the market.

BATHS are divided into—

1. The cold bath, from 33° to 60° Fahrenheit.
2. The cool bath, “ 60° “ 75° “
3. The tem. bath, “ 75° “ 85° “
4. The tep. bath, “ 85° “ 92° “
5. The w'm bath, “ 92° “ 98° “
6. The hot bath, “ 98° “ 112° “

— *Waring's Therapeutics.*

EXCISION OF A CEREBRAL TUMOR.—The *British Medical Journal*, October 2, 1886, report the successful removal of a cerebral tumor from the brain of a patient who had been hemiplegic for a month, and had passed into a semi-comatose condition. The operation was by Mr. Victor Horsley, who trephined over the region of the tumor and removed it. It was 3 inches long, 2½ inches broad, and 2 inches deep, weighing 4½ ounces. The patient made a recovery with some power over his leg four days after the operation. This is the fourth case in which Mr. Horsley has operated successfully on the motor area of the cortex of the brain.

HABERKON, in *L' Union Medicale*, September 2, 1886, records a series of fifty cases of erysipelas treated with benzoate of soda administered internally. The aggregate daily dose attained was four or five drachms, and admirable results followed its use. The drug was given in mucilage or an effervescent water, and under its influence the fibrile temperature is reduced to the normal in twenty-four hours. At the same time there is a diminution of all other symptoms. No external applications were used, and in only two cases was an augmentation of the dose necessary.—*Medical News*.

THE CALIFORNIA STATE BOARD OF EXAMINERS, at two recent sessions, granted certificates to twenty-five applicants to practice medicine and surgery in that State. The time of graduation of the applicants extended from 1886 as far back as 1850. A practitioner of San Francisco, whose certificate to practice medicine was revoked by the Board last year, was recently arrested for practicing medicine without a license. When his case was called in the police court he pleaded guilty as charged, and paid a nominal fine of fifty dollars. He has now withdrawn his unprofessional advertisements, and states that he will hereafter comply with the requirements of the law.

SYME'S OPERATION PREFERRED OVER CHOPART'S OR PIRAGOFF'S.—In field surgery, during the late war, Chopart's and Piragoff's amputation of the foot were everywhere practiced. Candidates for surgeon's commissions were expected to be familiar with them, and Syme's amputation was little dwelt upon. We notice recently in the *Medical Chronicle*, in an article from G. A. Wright, F.R.C.S. (September, 1886), that he says: "In rare cases Chopart's or Piragoff's operations are performed, but the general opinion of surgeons is against these, and recently even Piragoff himself declared in favor of Syme's plan as contrasted with his own, while probably Chopart's operation is not performed half a dozen times in a year for tuberculous disease of the tarsus." Syme's operation has supplanted the others in the surgery of this section.

FOR the information of members of the Society who have received from Dr. Bahnson, their President, his admirable and timely appeal for help for the medical profession in Charleston, and to the readers of the JOURNAL generally we wish to add to what

we have published in this matter, that it is for the rebuilding of the Medical College that funds are necessary, and donations to that end will be bestowed upon a most deserving institution, and under the control of medical gentlemen of well-known ability. We hope the appeal made in the statement of the Dean of the College, that it will require from \$8,000 to \$10,000 to repair the building and dissecting room, will meet with a hearty response from the profession in this State and throughout the United States. Contributions can be sent direct to Dr. Middleton Michel, in Charleston, or if physicians or others in North Carolina prefer to send in their donations through the medium of the officers of the State Society, the channel which Dr. Bahnson's appeal opens for them will be available, that is, to send in the funds through the Society's Treasurer, Dr. R. L. Payne, Jr., Lexington, N. C.

PHYSIOLOGY OF SLEEP.—The familiarity with the wonderful phenomenon of sleep has blunted our powers of observation into this important and interesting condition, and one of which so little is thoroughly understood as to the cause or the order of events which determine it. The *British Medical Journal* says: "Since attention was first turned to the investigation of the physiology of sleep numerous contending, and often absurd, theories have been formulated, with a view of accounting for its rhythmical occurrence; the unconsciousness, in varying degrees, which accompanies it, and its bearing on the economy. The very nature of the subject, however, seems to have predisposed those who devoted themselves to its study to leave the arid path of scientific research and deduction in favor of the more flowery and popular method of dishing up recitals of the weird and the extraordinary, as exemplified in those aberrations or varieties of sleep known as somnambulism, hypnotism, etc.; and the result has been the publication of numerous treatises, containing much that is both curious and interesting, but which, from a physiological or a pathological point of view, are not of much value. The perusal of a really scientific work on the subject, however, only proves once more the truth of the adage that truth is stranger than fiction. To the methodical and careful observer, the proper means of research yield results which are incomparably more curious, and, at the same time, instructive, than the pseudo-facts with which some writers fill their books. Each

successive gradation in sleep is marked by the inclusion of a nervous system which is for the time being shut off, so to speak, from participating in the general life-function of the individual until, when the maximum intensity is attained, nothing is left but the purely animal—one might almost say the vegetative—life. Sleep of this degree of intensity, although a perfectly normal process, is not, in health, of long duration. After the lapse of a variable space of time, the systems one by one resume their function, until finally the sum of perceptions brings about the condition of awakening. As a natural consequence of these variations in perceptive powers, the character of the sleep is altered, according to the period. From the deep unconsciousness of complete repose, when every sense is in abeyance and the will rendered nugatory, the cerebrum is gradually aroused, first to the dim appreciation of the influence of external agencies, followed in due course by a return of perceptive power in the sensorium, and the cessation of sleep. The brain shares in the need, which is everywhere apparent, of periods of rest. The products of cerebral activity accumulate more rapidly than they are eliminated, and a period therefore arrives when the tissues are no longer able to do their work. The result is an invincible feeling of indisposition to exertion, physical or mental. The temporary and involuntary cessation of activity is at once followed by a diminution of the blood-supply; the anæmia so induced being, therefore, a consequence, and not a cause, of the state of repose. The various parts of the nervous system are not all involved simultaneously or to the same extent. The centres governing voluntary movement are the first to be affected, as seen in the nodding of the head and the closure of the eyelids; and the body, if not prevented, tends to assume the position of repose, determined by the laws of gravity. The special senses soon follow; but here, again, they are not abrogated *en masse*. Sight is the first to go, the stimulus no longer reaching that portion of the cerebrum where it can give rise to a definite sensation, even where the closure of the lids has not shut off external stimuli altogether. Hearing and smell are remarkably persistent, and, except in the deepest sleep, may be said to be only dulled, and not extinguished. Everyone is familiar with the ease with which sleep is put an end to by unaccustomed noise, even of slight intensity, or, better still, by the cessation of any monotonous sound, as, for instance, the awakening of travellers by rail or steam-

boat on any stoppage of the train or machinery. Instances are on record, too, where the inhabitants of a house have been roused simply by the smell of the tobacco inhaled by inexperienced or incautious burglars. The persistent sensibility of these senses may to some extent be accounted for by the fact that they are not shut off from communication with the outside world, as are, for example, the eyes."

WE have received from Messrs. Reed & Carnrick, of New York, a convenient and well arranged series of "Diet Tables," for the use of the nurses in sick rooms. A leaf is allotted to the dietary of each disease, which can be detached and left for those who have care of the patients. To the list of food advised there is also appended, what is probably more necessary, those articles which must not be given. The firm issuing this very handsome and convenient little book of tables do not attempt to do more than suggest, on good authority, the dishes they present. But it will be useful to the physician, and relieve him very often of the necessity of making up a list for the attendant's direction.

SUBCUTANEOUS INJECTION OF SALT SOLUTION.—D. Tuttle, in the *Boston Medical and Surgical Journal*, describes, as follows, the subcutaneous injection of 50 cem. of a salt solution into the body of a boy seven years old, by Prof. Monti, in Vienna, and believing it may be of interest to your readers, and perhaps at some time useful, I send you this brief description of his method. The requisites are, a piece of rubber-tubing about six feet long, a large hypodermic needle and a graduated beaker containing a solution of salt. The salt solution is heated to 100° F., and then placed about four feet above the patient on a stool that rests on the top of a table. The hypodermic needle is attached to one end of the rubber-tubing. The tubing is filled with water, and one end is inserted into the salt solution, then the needle end of the tube is lowered and the contents are allowed to run off until the stream becomes warm from the salt solution in the beaker. The needle is now inserted into the subcutaneous tissue while the stream is flowing. At this moment an assistant reads the level of the fluid in the beaker. This done, one can tell exactly, by means of the scale on the beaker, how much of the solution has been injected. The tissue is distended by the fluid forming a tumor which disappears in the course of an hour or

two. In the case I saw the injection was made an inch and a half below the naval, and a half inch to the right of the median line. The swelling was an inch and a half in diameter and about half an inch in height. The whole time occupied in giving the injection and making the necessary preparations did not exceed twenty minutes. The method has been employed in the collapse of cholera infantum, and may further be found useful in some of those cases where intravenous injection has formerly been resorted to.—*Boston Medical and Surgical Journal*.

HAVING made arrangements with the *Therapeutic Gazette* and *American Medical Digest* by which we can offer those valuable journals in combination with the NORTH CAROLINA MEDICAL JOURNAL at reduced rates, we make the following offer to new subscribers and to those who wish to renew their subscriptions :

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DEATH FROM THE STING OF A WASP.—At an inquest held not long ago at Bath, Eng., respecting the death of an old lady, it was found that she had died from a wasp sting.—*Medical Record*.

A HANDY EMMENAGOGUE.—The common garden beet is said to act as an efficient emmenagogue if taken in sufficient quantity. An active principle is derived from it called betin, of which the dose ranges from two to four grains.—*Medical Record*.

[The demand for this class of remedies must be seriously increasing, and the renewed supplies seems to equal the needs of the seekers for relief.]

BOOKS AND PAMPHLETS RECEIVED.

Social Ethics.

Meconeuropathia. By C. H. Hughes, M.D.

Report of the Quarantine System of the St. Lawrence.

The Artificial Feeding of Infants. By John M. Keating, M.D.

Trigger Finger (*doigt à ressort*). By George W. Jacoby, M.D.

The Pamlico Section of North Carolina. By Jonathan Havens, New Bern.

Intestinal Castes ; with the Report of a Case. By William A. Edwards, M. D.

An Eulogy on the Life and Character of Dr. Ashbel Smith. By Dr. A. G. Clopton.

Intubation of the Larynx for Diphtheritic Croup. By E. Fletcher Ingals, A.M., M.D.

The Relation of the State and the Medical Profession. By Chas. J. Lundy, A.M., M.D.

Enucleation with Transplantation and Reimplantation of Eyes. By Charles H. May, M.D,

Annual Report of the Librarian of Congress, Exhibiting the Progress of the Library during the Calendar Year 1885.

Report of the Delegates from the Philadelphia County Medical Society to the Thirty-seventh Annual Meeting of the American Medical Association.

Erysipelas and Other Septic and Infectious Diseases Incident to Injuries and Surgical Operations Prevented by a Method of Atmospheric Purification. By David Prince, M.D.

Deductions from Ninety-one (91) Cases of Rheumatism, being a Consideration of the Report of the Committee on the Collective Investigation of Disease of the Medical Society of the State of Pennsylvania. By William A. Edwards, M.D.

Care of the Eyes and Ears. By Richard H. Lewis, M.D.

Proceedings of Pharmaceutical Association, North Carolina, 1886.

Two Rare Cases of Abdominal Injury. By J. A. Stucky, M.D.

Method of Managing Typhoid Fever. By F. Peyre Porcher, M.D.

Surgical Notes from the Case-Book of a General Practitioner. By William C. Wile, M.D.

Operation on the Drum-Head for Impaired Hearing; with Fourteen Cases. By Seth B. Bishop, M.D.

Galvano-Cautery in the Diseases of the Prostate, Bladder and Urethra. By Robert Newman, M.D.

Amputation at the Hip-Joint for Morbus Coxæ; with a Case and a Specimen. By Donald Maclean, M.D.

Some Reflections on Professional Ethics, Medical Legislation and Jury Trials of the Insane. By D. R. Wallace, M.D.

Radical Cure of Reducible Hernia. By Middleton Michel, M.D., Charleston. Extract from Reference Hand-Book of the Medical Sciences.

The Chartered Rights of the Medical and Chirurgical Faculty of Maayland to Exact Licenses to Practice in the State. By John R. Quinan, M.D.

READING NOTICES.

LACTATED FOOD IN DIABETES MELLITUS.—The following case will well illustrate the usefulness of the Food when applied to the treatment of this disease in its most aggravated form. A man 22 years of age had been suffering from headache, prostration, intense thirst and a voracious appetite for several months. Upon examination of him, in March last, he had all the above symptoms; had become too feeble to walk, and was practically confined to the bed. He was voiding 12 quarts of urine in 24 hours, which, upon analysis, showed a specific gravity of 1036—4 grains of sugar to the

ounce. His thirst was intolerable, his appetite unnatural, craving starchy and saccharine food ; was unable to sleep, and obstinate constipation existed for several weeks. He was put upon Lactated Food and skimmed milk, allowed to drink all he wanted of these, but denied water or any other article of food. In 48 hours the quantity of water voided was reduced to 3 quarts. In one week his food and drink consisted wholly of Lactated Food, and the general improvement in his symptoms was most marked. He continued on this diet for two months, and, so far as I could determine, all the prominent symptoms of Diabetes had disappeared. He was voiding but 1 quart of urine in 24 hours, spc. gr. 1016, bowels regular, could sleep without anodynes, had gained in strength, and was walking about. At this time, six months after adopting this plan of treatment, he is at work, has no apparent symptoms of the disease, and is allowed to take a mixed diet, simply avoiding starches and sugars.

PARVULES.—This is a coined word, meaning small doses in globular form for frequent repetition, usually divided into periods of one hour each. It is claimed in its behalf that it is the only perfect dosimetric system of administering medicines. That is to say, the quantity and frequency also must determine the therapeutic effect. It enables the physician to regulate with certainty the action of the drug, the rule being to give one Parvule every hour or two every two hours. Any age can be suited, because reference to the list of this class of remedies prepared by Wm. R. Warner & Co., of Philadelphia, will show that in nearly all cases 24 Parvules a day, or the average of one per hour, would be full dosage. For instance, 1-50 gr. Morphia in each would be half a grain a day ; 1-20 gr. Podophyllin would be one grain and a fifth a day. In case of Calomel it is a recognized fact that small doses produce wonderful effects. One or two Calomel Parvules taken every hour for six doses have marvelous effect. The Parvules of Aloin in certain cases, periodically taken, produce great effect and comfort. A logical explanation of the exact action of minimum doses is an impossibility in the present state of physiological investigation. Bartholow says that the therapeutical action is the physiological antagonist of the diseased action. The only certain principle of action, however, is found in actual experience. Drs. Peters, of Paris, Ringer, Bartholow, Dessau and others, equally well-known in the literary arena, have cited numerous cases of almost every variety of disease wherein they brought about a desired result by the adoption of minimum doses, when all other plans of treatment had failed. The Parvules are elegant in form and certain in action. Their mode of preparation, together with their action upon secreting surfaces, prevent cumulative effects. The dose and effect can be regulated with the utmost precision, while their simulative size, with an absence of taste, render them of peculiar service.

NORTH CAROLINA MEDICAL JOURNAL.

THOMAS F. WOOD, M. D.,
GEO. GILLETTH THOMAS, M. D., } Editors.

Number 5. Wilmington, November, 1886. Vol. 18.

ORIGINAL COMMUNICATIONS.

THE MALARIAL DISEASES OF EASTERN NORTH CAROLINA—STUDIED WITH REFERENCE TO THE GERM THEORY.

By S. S. SATCHWELL, M.D.

(Read before the North Carolina Medical Society, at New Bern, May 21, 1886.)

Mr. President and Gentlemen of the North Carolina State Medical Society :

At an annual meeting at Raleigh, in May, 1884, I was appointed to report, at the succeeding meeting at Durham, upon "Advancement in the Science and Practice of Medicine." Prevented by unavoidable engagements from so doing, I now beg leave, respectfully, to submit this paper as a substitute, duly appreciating the compliment of said appointment. It contains some reflections upon the germ theory and malaria, together with a notice of some of the prevailing inflammations and fevers of our eastern counties. As a laborious country practitioner in Eastern North Carolina for the last thirty years, I trust

this record of a portion of my observation and experience will not be wholly devoid of interest. We all know something of the necessity imposed upon the country practitioner of thinking for himself and of cultivating habits of self-reliance. This very necessity trains him to observe and investigate for himself, and to be careful and discriminating in accepting views, conclusions or dogmas of others without subjecting them to the test of rigid examination, sound medical reasoning and ample experience. So wonderful is the onward march of medical progress, as relating to the etiology, nature, pathology and therapeutics of disease, that, unless we are acquainted with sifted facts and actual knowledge that underlie established principles of our art and science, we are apt to become mere routinists, disqualified for deciding upon new theories and remedies as they continually come forward, and are easily made victims of those medical errors and delusions that are ever assailing the bulwarks of the profession. So great are the demands upon us all in these fundamental relations that scarcely any publication or treatise on a medical subject is now regarded as entitled to consideration unless it embraces the cause and nature of disease, as well as the means of its prevention, removal and cure. Especially is this true as bearing upon whatever relates to the origin and nature of disease. Laymen, as well as scientists and busy practitioners, are now interested as never before by new enquiries and developments upon this subject that have come to the surface in connection with the germ theory of disease. During the last ten or fifteen years no question in medicine has been so much agitated or occupied so much thought in our profession as this fascinating subject known as the germ theory. So that it would be unpardonable in me, in discussing some of the prevailing fevers and inflammatory diseases of the middle and eastern counties, to omit a reference to the family of micro-organisms, as well as to malaria, as factors of disease. It is encouraging that advances in the last few years in the literature of micro-organisms and bacterial pathology have not only shown, as were previously unknown, and even unsuspected, that these bodies are infinitely small in size, but that they bear important relations to our own organisms and to the lower animals in health and disease. It is not surprising, therefore, that the subject presses upon medical attention to an absorbing degree. Our last "Transactions" contain a well-prepared review of the relations of micro-organisms to disease, from the pen of our talented young member, Hubert Haywood, M. D., of

Raleigh. In common with all who listened to its reading, I heard him with much interest. Like so many others, who have seized with avidity upon the disclosures of the microscope in these assumed relations of micro-organisms, the doctor holds that the human organism is invaded by microscopic organisms or germs, and that disease is a struggle between the organism and the parasites invading it. This idea (using his own language) "discards the old idea of impurities of the blood, chemical dyscrasia, a genius epidemicus, and the omnipotent bugbear cold." Dr. Haywood argues most ingeniously, as do others, in contending that the germ theory rests upon a solid foundation. He offers as evidence that "measures and remedies that have the most beneficial effects in the prevention, treatment and cure of the different infectious diseases have been proven to be antiseptic and germicidal in their properties." He says "there is the direct proof of the certainty of the germ theory in the artificial cultivation of micro-organisms associated with certain diseases and obtained from the subjects of such diseases, in sterilized, nutrient fluids, and inoculations with these pure cultures, several generations from the original source, thus reproducing the original disease, with all of its characteristic features." Distinguished authors say: "These parasitic forms of life are of two, or, as some would opine, of three kinds. Certain of them are of a distinct animal character, others are distinctly vegetable, while others, it is assumed, lie between the vegetable and animal kingdoms." It is claimed for human parasites that they are of three classes: 1st. Entozoa. 2d. Ectozoa. 3d. Entophyta and Epiphyta. The first two classes are said to be animal in character, embracing a large number of parasites, known and recognized. The last are regarded as vegetable, the nature of which are of more recent investigation and discovery, and are now claimed as the cause of the most formidable diseases that scourge mankind. They are said to be of the nature of fungi, one of the very simplest forms of life, and found in the blood, secretions and tissues of the human system in many diseases. As we all know, bacteria are organisms, or parasites, to which are attached primary meaning and great importance by those who claim them as causes of disease. Bacilli, as is well-known, are rod-like bacteria and multiply by fission as well as by spores. It seems that prolonged boiling does not lessen their activity, neither does immersion in alcohol for months, and time seems powerless to weaken them. They are capable of growth and reproduction. They are

regarded as the lowest form of bioplasm in nature, and, according to Koch, they do not originate in healthy animal tissue. They exist upon the skin and surface of mucous membranes, in the mouth and in the follicles of glands. Morbid alterations in digestions are claimed to be followed by the multiplication of bacteria in all parts of the alimentary canal. The germs are claimed to be found in healthy blood, but remain dormant until some change adverse to healthy action takes place, when they grow and multiply with much rapidity. It is difficult to find a spot destitute of bacteria germs. They exist in the air we breathe, in the water we drink, upon the soil, on high mountains and in plains and valleys, riding on trees, dust, insects and upon the rays of the sun. It is for morbid structures they have the greatest appetite. They prey with great avidity upon dead animal tissues—are found in the secretions of cholera and fever patients during life, and people the body in numberless swarms a few hours after death. But Koch, Pasteur and others affirm that they have not detected bacteria in healthy animal tissue. In health we may breathe, eat and drink bacteria with impunity, but as soon as disease sets in the diseased tissue or organ swarms with them. It is held that putrefaction is dependent upon the presence of bacteria and that sepsis is due to their action. Therefore septic infection from a wound means the absorption of bacteria. It is contended that, while septic infection is only another name for the presence of bacteria, and, while the presence of bacteria in the wound is unnecessary, yet that these liquids are putrid because they embrace the products of bacterial life. Amid the admitted doubt and speculation hitherto attendant, to no little extent, upon the etiology of disease, conjoined with the seductive attractions of the germ theory, and the glittering costume in which novelty is generally robed, a great bacterial wave has been sweeping over the medical world for a number of years.

The enthusiasm exhibited by the brilliant workers in the untiring field of germs, micro-organisms and the entire family of microbes is calculated to convey the impression that the subject is a new one, confined to the last ten or fifteen years. Not so, however. As early as the middle of the last century it occupied the attention of the profession. Then it was that authors pointed to "animalcules" as the cause of contagion. Thus early did medical men hold that an extensive list of diseases were owing to the effects of parasitic organisms. Itch, dysentery, measles, syphilis, leprosy, small-pox and other diseases were

claimed to be due to this cause. Tubercles were held to be owing to acare in the lunga. Cholera was thought to be caused by matters originating from lower organisms. These early germ theories were abundant because of the want of relationship between the cause and effect. *Their* methods withheld the action of the cause. *Ours* consists in applying it to lower animals by inoculation. It seems that micro-organisms, called *infusoria* in earlier times, were first perceived by Leuwenhoeck (1675). Dr. William Budd, of Bristol, England, was about the first man of recent times who claimed, in 1849, that low organisms invaded the body and caused infectious diseases. Since then, as we all know, Koch, Klein, Pasteur and others have made extensive researches in the line of micro-organisms; Pasteur in chicken-cholera, hydrophobia, etc.; Koch in septicæmia, tuberculosis, etc., and Klein, Koch and others in the minobes of cholera. Kindred researches are now going on with great industry in respect to malarial and typhoid fevers, pneumonia, yellow fever and other diseases.

It is claimed, with plausibility and persistent tenacity, that micro-organisms constitute efficient cause of disease for the following reasons among others:

1st. That there are constantly the same bacteria in the tissues or discharges, and in numbers sufficient to cause the symptoms.

2d. That the organisms, as likewise morbid matter taken from diseased animals, produce the same disease in other animals.

3d. That pure cultures, distinct from other organisms, and free from original morbid matter, and carried through several generations, as called, cause the same disease in other animals.

Now, existing facts and medical reasoning do not clearly establish these propositions. In regard to the first, it is true that germists admit the presence of an organism as evidence of its causative efficacy. But medical reasoning here is at fault because of a failure to draw the necessary distinction between cause and concomitance or coincidence. Who knows whether the organism is a cause, or a concomitant, or a coincident of disease? Besides, different germists, while contending that morbid conditions imply the presence of an organism as cause of disease, do not, in all cases, agree as to the nature and character of the organism. Here we have different causes set up in the same morbid condition and in the same body, as producing the same disease. In nearly every disease claimed to be of parasitic origin more than one organism is claimed by different discoverers to be its cause.

In relation to the second proposition, the method of experiment referred to is not conclusive evidence. It only shows, in all fairness, that disease may be communicated by infection. *But whether the micro-organism itself or diseased tissue is the efficient instrument or agent, is not shown.*

The third proposition, it is respectfully submitted, is also defective in proof. A pure culture means freedom not alone from other organisms, but freedom from morbid matter or condition. It is called pure when only one species of micro-organism is present, and this means that nothing else is present but that organism. For purposes of inoculation the organism and some of the culture medium must be used. Generally the latter is greater in amount than the former. Of course, before using the material all morbid matter must be removed from it. The process or mechanism by which this removal is effected opens, or presents, three different suppositions for its explanation or solution. It must be done by desiccation, or putrefaction, or dilution. If done by desiccation, the process can hardly be regarded as efficient, for the reason that the desiccated morbid material would be likely to absorb moisture from the tissues of the inoculated animal, and thus become diffused throughout the blood and serum. The process of putrefaction presupposes the presence of putrefactive organisms. True, these organisms do not continue to grow, but their spores, only destroyed by boiling, will adhere and be transferred from culture to culture, and hence remain with the matter used for inoculating purposes. These spores, it is claimed, easily develop in the inoculated animal and confirm the result, as it is contended examples have shown. Those who deny the conclusions of Pasteur and others assert that if the process is by dilution, dissipating the original morbid material, in fluid cultures it becomes enormous. It is argued, they say, by Pasteur, that if a single drop is used to inoculate twelve successive cultures, the dilution of the original drop of blood is the same as if the drop were placed in a bulk of water equivalent to the size of the entire earth. If the impression sought to be made by this statement is well-grounded, this extreme and extraordinary dilution would, as a matter of course, show the absence, practically, of morbid matter. But the assertion is boldly challenged by disbelievers, who contend that if a drop of blood should be placed in such a bulk of water the micro-organism, even, would be lost, as well as the organized elements of the blood. The sophistry of the proposition is seen in the exclusion of the effects which

the culture causes. Are we to disregard influences which morbid tissue may exert on the culture medium? This consideration is ignored in the self-sufficiency of the explanation that the material is an infinitesimal portion of a chemical virus. A pure culture is entirely unnecessary under any assumption that morbid matter has no influence in the transmission of disease. It has not yet been shown by experimental investigation what the influence of morbid tissue is or how it operates. Not until it has been proved what the powers of morbid material are, apart from organisms, can it be demonstrated that lower organisms, and lower organisms alone, are the efficient cause of disease.

Hoffman has recently written a work to establish a fact, heretofore denied, that normal human blood contains an abundant quantity of micro-organisms which, under appropriate conditions, may assume pathogenic properties. At a recent meeting of the Paris Academy of Medicine that noted medical gentleman, Professor Le Fort, made a bold and vigorous assault upon the microbe theory. Addressing himself to its special advocates, he said: "By denying the spontaneous germination of microbes *in* the system, you necessitate their existence *outside* of it, and yet you cannot detect one there. The most virulent epidemic of erysipelas, or gangrene, or hospital fever may rage in a hospital ward, but still human ingenuity is powerless to find in its atmosphere a single morbid germ, if there really existed anything in the *entourage* of the stricken patients—and germs would be there if they *enter from without*—they would necessarily be discoverable. It follows, therefore, that the negative results of the search for them overthrow your system, and leave you without recourse. Upon your own grounds, therefore, the microbe system is false—is but a tissue of contradictions in terms and conclusions, without a single authenticated fact to give it consistency and vitality." Similar diatribes are often pronounced of late by leading members of the Academy against microbes and their champions. The brilliant Professor Peter, of that distinguished body, in his withering denunciations of the microbe theory, holds that disease arises not from germs which *enter* the body, but are developed *in it*. It is the theory of this eminent Frenchman that life entails death, because in the physiological metamorphosis essential to its manifestation, certain bodies are elaborated which induce decay and cause dissolution. In fact, he contends that our systems are but laboratories for the preparation of poisonous compounds, which first contaminate and then destroy them.

Admit, even, that there is some truth in the microbe hypothesis, it is certainly remarkable that no germist or microl ist has yet found a germicide. That is what we all want—that is what our patients are clamoring for and demanding—that is what the profession have been anxiously waiting for and working for these many long years. The medical world is put where it was before and since the birth of medicine, including the period of these brilliant microbe discoveries, seeking for remedies adapted to special diseases, namely, specifics. If the germ theory should become fully established, the safest, best and most certain germicide, specific or remedy, can only be used in reference to indications; to suggestions founded upon experience, proper regard being had to its physiological effects. But let us not forget that in killing the microscopic germs we may also kill the giant upon which the little fellows are feeding. By all means let investigations be encouraged in this important line of medical progress as bearing upon the germ theory. We need all the light that is possible to be thrown upon the many dark places in our science.

The always important subject of malaria derives new interest in this germ relation because of recent experiments and discoveries. Laveran claims to have recently discovered in malarialized patients a peculiar microbe, which he asserts is not a bacterial body, but an amœboid organism, parasitic in nature, and infesting the red corpuscles. It is claimed that this organism is destructible by therapeutic doses of quinine. The assistants of Laveran, in the city of Rome, assume to have frequently verified this statement. Sternberg, of this country, says that he has demonstrated the same to Professor William H. Welch, of John Hopkins University, in whose laboratory the microscopic examination was made. The blood was drawn from a patient, it seems, in the outset of an intermittent paroxysm. Brought under the microscope, the demonstration of the amœboid organisms was made in the presence of several medical gentlemen, and to the satisfaction of Professor Welch. Sternberg cites his own laboratory experiments to show that the bacillus malarial of Klebs and Tommasi Crudelli cannot be destroyed by an amount of quinine that would be safe to administer. But the "amœboid blood parasite," as he calls the discovery of Laveran, is classed among the infusoria, and they seem susceptible to the action of quinine. Laveran claims that they are found in quantities more or less abun-

dant in proportion to the mild or pernicious character of the infection. It is asserted that no observer has found these peculiar infusorial bodies except in malarialized persons. Time alone will show whether these assertions and claims of Laveran and his followers will become to be established scientific facts.

It would be superfluous and wearisome to detain this enlightened medical body with a discussion of the various theories that have been advanced as to the nature and cause of malaria. As you are aware, Salisbury contended that he had discovered its cause in the algæ or spores of the palmella; Burdon Sanderson, that he had discovered in his pyrogen the essential factor, and that by inoculating a healthy subject with it he could produce undoubted malarial attacks. These theories proved to be only sensational. We are all familiar with the captivating views of our own distinguished countryman, Professor Mitchell, of Philadelphia. The old theory of Lancisi, that malaria is gaseous, held sway for a long period of time over the mind of the medical world. But it remains for future investigations and discoveries to establish the true origin and character of this subtle poison. Whether it is gaseous in form, or a chemical non-living substance, or a living organism, must be left to the scientific developments of the future. But whatever may be established as the true theory, it would seem that the combined action of heat, moisture and vegetable decomposition is essential to the production of malarial poison. This is the general observation and experience of physicians living in malarious localities. It seems to be well-founded that it gains entrance into the system by the inhalation of air, or by swallowing water containing it. More than one-half of the diseases of our State, especially of our eastern towns and counties, are due to its influence. Finding victims everywhere, insidious in its approaches, invisible, assailing, in preference, those of weakened vital forces, often masking its features and hiding itself behind some other malady, it is only to be routed when assailed by the forces at our command. It clings tenaciously to its old accustomed haunts in our eastern plains, fertile valleys, rich swamps, and along the basins and upon the borders of our streams. Causing two-thirds of the mortality of most warm countries, surely its origin and character cannot much longer be concealed from the knowledge of man. The opponents of the theory that malaria is a living substance, or caused thereby,

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hold up the periodicity of malarial fevers as an argument to support them, but to this the reply is made that this periodicity is owing to vital changes and periodical developments in these living bodies, and that the morbid phenomena of malarial fevers depend upon the direct action of the malarial parasite on the system.

Those who contend that, be the nature of malaria what it may, the essential factors of its production are the combined action of heat, moisture and vegetable decomposition, are met by objections. These objectors say that such a statement is more declaratory and inferential than established. If this is true, say they, the want of uniformity of action of the malarial cause, in like seasons, localities and conditions would not exist, and malarial fevers would not differ, as they do, in amount and severity, under like circumstances. But those who hold with Lancisi to the extent that said factors, in combination, are essential to malaria, argue that the absence or innocuousness of it in certain seasons and in the same locality finds an easy explanation in this, that such seasons and localities are exempt from those atmospheric vicissitudes, that thermometrical and hygrometrical condition which experience teaches to be necessary to the evolution of malaria. These changing conditions of the atmosphere may augment its virulence one season and decrease it the next, or the poison may be neutralized in its action almost entirely. Every eastern practitioner knows that our sickliest malarial localities abound with much malarial sickness in some seasons, while in others, and under like physical conditions, the same localities are mostly exempt from malarial fevers. These objectors fail to admit that heat, atmospheric pressure and the purifying influence of winds, as these agencies vary in the changing phenomena of different seasons, are connected, more or less, with the modifications of the action of malaria and other etiological factors of disease. There must be an elevation of temperature, generally not less than sixty degrees, to develop the poison, and this range is sometimes presented in the winter and spring as well as in the summer and autumn of malarious regions. Hence it is that in such localities intermittents and remittents occasionally prevail in winter and spring as well as in summer and autumn. Unless the factor of sufficient heat is present the other two are imperative. If there is an excess or deficiency of moisture, if the soil is too wet or too dry, an essential factor is absent. And the same as to

vegetable matter, if too much covered with water, or so much obscured by foliage that decomposition cannot take place, another material factor is absent. The importance of the subject will bear the repetition that the septic properties of this substance demand for its development the action of the agencies essential to decomposition, that a certain amount of heat is necessary thereto, that there must be a certain amount of moisture, that an excess of it arrests decomposition, that its absence will have the same effect, that the poison is promoted or retarded by atmospheric influences, and that it is modified or prevented by elevated situations. These are the agencies and conditions recognized as potent factors in the generation of malarial fevers and the results bear a direct ratio to the potency of the causes producing them. The boundaries of malaria are generally measured by the activity and strength of these factors. It diminishes in activity and power as we proceed in a northerly direction. How high it ascends is not so well settled, some saying it rises only ten or fifteen feet in calm weather, others contending that it may ascend from twenty to sixty feet. It is more probable that its altitude depends materially upon the power and activity of the air currents, which are its wings. It is the experience of those living in malarious localities that those who select, especially at night, the second or third story of a house are more exempt from its attacks than those who sleep in a basement or upon the first floor while those residing upon ridges or elevated situations are less liable than those remaining day and night in the plains and valleys below. Nor is it settled how far its action may extend in a horizontal direction, the distance ranging from one to two miles or more, probably depending upon obstructions and the force of the winds. Though not so common as formerly in the middle and northern States, it is not absent, under favorable circumstances and favoring conditions, from certain localities of those States. Our negro population are more exempt from it than the whites, and when attacked more readily yield to appropriate treatment. It need hardly be said that it increases in activity in proportion to its proximity to the equator. Nor are the lowlands and river margins of the eastern counties alone the natural habitat of this dreaded foe of mankind. Mountain valleys and sandy plains present, under favorable conditions, a combination of causes that produce it. Sandy and alluvial plains, baked by the sun or covered with vegetation, give rise to it, espe-

cially if alternately wet and dry. An impervious sub-soil in the depressions that prevent the natural movement of the ground-water, with a porous surface soil, favors its development. Undisturbed porous soils are prone to give it off, while compact soils are comparatively innocuous until man's interference exposes them to the air. Build the houses and pavements of a city upon malarious soil and the malaria ceases, but remove them, even years after, so that the air and sun regain access to the soil, and it reappears. Virgin soil in similar localities that remain covered with a thick foliage of trees, does not, in general, emit it; but kill the trees and clear the land, and it abounds until vegetable decomposition ceases and drainage has made the soil dry. Conditions that favor the accumulation of stagnant ground-water and obstruct the purifying influence of atmospheric currents favor its development.

Tommasi Crudelli, the distinguished Professor of Hygiene in the University of Rome, Italy, delivered an address in August, 1884, before the International Medical Congress, at Copenhagen, upon hygienic questions relating to malaria. Before that august body he made the following remarkable statement: "The idea that intermittent and pernicious fevers are engendered by putrid emanations from swamps and marshes, is one of those semi-scientific assumptions which have contributed much to lead astray the investigations of scientists and the work of public administrations. This idea, so widespread and so well established by the traditions of the schools, is radically false." This is a denial of the observation and experience of the world that putrid emanations from swamps and marshes engender intermittent and pernicious fevers, and that heat, moisture and vegetable decomposition, when in combined action, are not competent to produce malarial fevers. This eminent scientist admits malaria to be "a specific ferment, which engenders those [malarial] fevers by its accumulations in the atmosphere which we breathe," but denies that it is even of paludal origin, or a product of putrefaction. If emanations from swamps and marshes do not originate malarial poison, whether it consists of living organisms or not, then the profession, in all ages and countries, have cherished false doctrines and grave heresies, and it remains for this great Italian hygienist to rebuke them for their stupidity and to strike the scales of ignorance from their eyes. His malarial views are antagonistic to the views and experience of the profession generally

of this Southern land. But he is only another living illustration of the large number furnished by the literature of malaria that it, too, has yet enthusiasts and fanatics, whose heresies have done, and are still doing, much injury to the cause of medical truth and sanitation. Erroneous and injurious also is he in saying that belts of forest trees, standing between low, swampy places and adjacent higher and healthy spots, afford no protection against this agent, to those living adjacent to the swampy places, but on the opposite side of the belt of trees. Trees *do* filter the infected atmosphere, and, by their limbs and foliage, *do* arrest malaria as it rises and makes wings of air currents. For this reason the intelligent farmer, if alive to his own sanitary interests, and a resident of a malarious spot, leaves a belt of woods between his residence and his lowland that he knows to be a hot-bed of malaria. Like so many others of our leading medical brethren on both sides of the ocean, who follow favorite theories and pride of opinion rather than the legitimate deductions of science, he had a special theory to sustain, and he did it, ingeniously, it is true, but upon fallacious grounds, and his conclusions are erroneous.

It is a significant fact of malaria, and of importance in a sanitary view, that those who, residing in malarious spots, abstain from drinking the surface water of wells or that of badly constructed cisterns, are more exempt from malarial disease than those who drink such water. The fact that water *does* attract, absorb and hold in solution malarial poison, has been too long and too generally neglected by our people in their arrangements for water supply and health. That the human system becomes infected in this way, as well as from breathing malarious air, is as true as that water, polluted by other substances, is productive of disease. In the one case the water becomes impregnated with malarial poison, and in the other with infection of another type. Bad drinking-water has been too greatly disregarded as a factor in summer complaints, autumnal fevers and other diseases incident to the different seasons. Our eastern people especially need reform in this important line of comfort and health. Water for drinking and cooking purposes should either be obtained from the bottom of good wells, uncontaminated by surface water or other impurities, or from good cisterns, constructed to exclude air, surface water and every impurity. Malarial poison not only lurks in the surface water of wells, springs and

badly-constructed cisterns, but in the turbid waters of our sluggish streams, muddy creeks and rivers, as they bear themselves to the ocean. Significant facts like these tend to settle a question often raised by objectors that heat, moisture and vegetable decomposition are necessary to malaria in this, that malarial diseases are sometimes found in hilly regions and mountainous sections, where these factors seem to be absent. But these objections fall to the ground in the face of the fact that these factors *are* sometimes found in hilly regions and mountainous sections. The physical condition of such localities, with their basins and obstructed low places alternately wet and dry, explain the liability to malarial fevers. The hills, valleys and mountains of the middle and western counties of our State are not destitute of malarial localities and conditions. While autumnal rains and winter snows bear back to the surface of the soil atmospheric and other impurities, acting as sources of disease, the natural streams of a country are nature's chains for bearing atmospheric as well as soil impurities, as so much sewerage, to the ocean.

More active near the surface of the ground, malaria moves like mists, rolls up hill-sides and climbs steep places. It is arrested by fires, sheets of water and trees. Ship crews lying to leeward of a malarious shore have been affected by the off-shore wind. It is liable to be generated in ships having cargoes of wood or other decaying vegetable matter, or timber and bilge.

More than a mere reference to the effects of this poison upon the human system would be superfluous before this large and learned medical body. That it tinges the skin, producing the well-known malarial physiognomy, poisons the blood, deranges the functions and nervous system, produces congestions and visceral enlargements and obstructions, as well as causes the entire family of malarial fevers, is a fact familiar to every practitioner in our eastern counties. Much of the anæmia, dyspepsia, asthma, neuralgia and other chronic affections of malarious sections originate from its action. Its chronic effects often lead to fatal structural changes of the liver, spleen and mucous membrane of the intestinal canal. These facts, so well known to our medical men, were even known to Hippocrates before he wrote on epidemics.

In regard to the symptoms of the different forms of malarial fever, they are so well known and so easily recognized, and the

remedial measures so general, uniform and familiar, that scarcely a word need to be said as to the symptoms or treatment. Mercurials and quinine continue to constitute the sheet-anchor of treatment in ordinary cases of malarial or bilious remittent fever. The former to arouse the sluggish secretions and stimulate the torpid biliary organs, the latter to break up the periodicity and continuance of the fever. Chronic malarial cases, such as those described, need to be treated upon general principles, involving the condition and constitution of the patient and other surroundings. They are often so complicated and difficult as to put the practitioner fully upon his mettle. Wherever malaria exists, whether the disease is acute or chronic in form, quinine is indispensable, and in doses to meet the nature of the symptoms. It is still the only known remedy to break up malarial diseases, acute, chronic or complicated ; and this whether its antidotal power is that of a germicide or acts otherwise. In this respect no remedy can be compared to it. To whatever cause the antidotal or anti-periodic powers of this drug may be attributed, it is certain that it is the best specific or germicide known. Whether germicides are necessary or not in breaking up malarious disease, mercurials are necessary, and this whether germicidal virtues are considered, or anti-malarial or anti-bilious action is in demand. That calomel is potent to these ends, and is essential to the cure of a large number of our hepatic and inflammatory affections, and in larger or alterative doses, is as clear to my mind as that quinine is necessary in the treatment of periodical fevers and malarial complications of disease. If the case demands mercury, no prejudices against it deter me from its use. If the high grade of the disease or the violent nature of the case calls for more anti-phlogistic treatment in the beginning, no prevailing fashion nor denunciations of "obsolete practice," or "old-fogy ideas," serve to restrain me from using the lancet.

A few remarks here upon the general treatment of inflammatory diseases and febrile complaints, as they appear in these eastern countries, are appropriate. In this enlightened day of medical progress no physician is up with the times who is not guided in his practice by those principles of etiology, diagnosis, pathology and therapeutics as are legitimate deductions from science and experience. Of course he will always regard the modifications of climate, topography, season, type of disease and those conditions and peculiarities

that directly apply to the individual treated. In this way the judicious practitioner follows the lights of truth and experience. The disclosures of the pulse are, in my experience, of continued prime importance, while the temperature, tongue, secretions and excretions come in, of course, still for prominent consideration. The great fluctuations in the practice of medicine, not alone as regards the alternate employment and abandonment of certain drugs and lines of treatment, but as involving its general principles, while sometimes to be attributed to the influence of mere fashion and love of novelty, are, it is to be hoped, greatly owing to the inevitable results of increasing knowledge. Venesection, for example, so bitterly denounced for a great many years in any case, is less repudiated the last few years, when used in the first stage of very high fevers, powerful congestions and high grades of inflammation, especially if the patient is plethoric and not advanced in years. The physician who dares to use the lancet in these aggravated conditions, is not now regarded so much an old fogey, belonging to the antediluvian ages, as he was a few years ago. None are more ready to admit that the advisability of using the one or the other, or both, of these depleting measures, depends upon the nature, stage and type of the disease, and the condition and constitution of the patient, than are the advocates of antiphlogistic treatment under the aggravated forms named.

But pneumonia, always grave and critical, has become, to a great extent, the battle-ground of controversy in regard to its etiology, nature and treatment. Whether it is a local, inflammatory disease, or an essential fever, the pulmonary affection being secondary, is now the mooted question. It is held by leading physicians in our own and other countries that the views held for centuries as to the nature and etiology of pneumonia, are erroneous. From Hippocrates down to the present day, leading medical minds have held that cold is the most constant and potent factor in the production of this disease. An individual in full and robust health, exposed to severe cold, or to cold winds, or cold rain, or when heated, exposed to cold currents of air, is liable, in the opinion of medical men of all ages, to be stricken down with pneumonia so suddenly that, until recent years, no question was raised as to the connection of the exposure as the cause, and this disease as the effect. But a set of learned men, among those who claim that the germ theory has passed from the realm of speculation to absolute and established science, have come to the front in bold

denial of this doctrine of cold. These distinguished gentlemen hold that this local inflammation is an essential fever, and caused by micro-organisms, or the pneumo-coccus, as it is called. Our own distinguished American physician, Dr. Austin Flint, Sr., the Nestor of the profession in this country at the time of his recent death, was a strong believer in this theory. But even in the face of such high authority that pneumonia is an essential or specific fever, the result of a specific germ, it is certainly justifiable to say that the reasons given are unreliable and illogical. Bearing in mind that it is not a summer disease, when the warm weather and its attendant conditions are so favorable to the generation and activity of germ life—that it is much more prevalent in cold climates and in the cold and variable seasons of winter and early spring—unfavorable to germ life, is it not extremely improbable that it is caused by a specific germ, vegetable or animal? Is it reasonable that this pneumo-coccus should select its home in the lungs during the cold and chilly seasons, when pneumonia mostly prevails? Let us keep in the old paths until better ones are blazed.

Leaving this debatable ground, let it be borne in mind that inflammation of the lungs varies in danger at different times, stages and places. In the low, adynamic form it has generally assumed in this State for many years past, the lancet is seldom called for, even in the earlier stages. Cupping, counter-irritation, poultices, expectants and medicines that lower the temperature, support the system and tend, as quinine does, to break up the disease, constitute the general practice. Depletants, outside of a careful use of mercurials in the early stages, are seldom called for. But I have occasionally met with an uncomplicated case of pneumonia calling for the lancet as well as decided doses of calomel in the beginning, and have used both with benefit. Take the case of a strong, plethoric, vigorous man or woman, suddenly attacked with violent inflammation of the lungs. The symptoms are distressing. The face is flushed, the patient gasps for breath, perhaps unable to lie down, speech is difficult and the cough is a mere hack. Congestion soon spreads over a large portion of the lungs. There is violent action of the heart, but a weak, subdued pulse, owing to an insufficient amount of blood to the left ventricle, caused by lung obstruction. If the patient is to be saved, no time is to be lost. It is in such grave situations that I have used the lancet with benefit. As the blood flows the pulse improves, the breathing is less frequent, there is less difficulty in coughing, the patient is better in all respects, and

life saved. The *modus operandi* is not so much the direct reduction of the inflammation as a relief of the violent symptoms and of the pressure which causes an over-distention of the right side of the heart. Medicines to reduce temperature will aid these restorative tendencies, conjoined with such doses of calomel as are necessary to subdue inflammatory action, using quinine as a general thing in conjunction with remedies indicated.

But it is the complication of pneumonia, as it is that of diphtheria, intestinal disorders, hepatic derangements and other diseases, with the malaria of the locality and of the preceding summer and fall months, that we are compelled to deal much in these eastern sections of the State. The practitioner who recognizes this complication in his diagnosis and therapeutics is generally the most successful in his practice. Quinine is emphatically a *sine qua non* in the treatment of malarial pneumonia, the most common form of pneumonia in malarial localities. It may well be repeated that it is the best anti-septic and so-called germicide known. Nor can it be denied that mercurials are efficient and often necessary allies in the treatment of these malarial complications, and this whether the disease is primarily congestive or inflammatory. It seems to be more commonly the former. This is said because we often find that the cold stage of the invasion of pneumonia lasts for hours sometimes, and even days, attended with clammy perspiration, feeble pulse and evidence of additional passive congestion. This seems to be due to that paralytic condition of the capillary vessels of the lungs. Not until reaction is followed by fever are we apt to see signs of well-developed inflammation. To prevent its passage to the second stage, or that of solidification, tests the skill of the practitioner. It has not escaped the attention of the profession that in this feature and other characteristics of pneumonia, we have the testimony of that able physician and bold, original thinker in medical science, Professor Otis F. Manson, M.D. This distinguished physician, formerly of our own State, and now a leading practitioner of Richmond, Virginia, is one of those pioneers in Southern medicine who has shed new light along the pathway of his successful career. His observations, as made known in his numerous publications, were opposed for a long time, but are now generally endorsed in the experience of Southern physicians. That malarial poison, so often pent up in the system, may, by its morbid action, develop lung disease, is a fact of my own experience. It was the able researches and contribu-

tions of this Professor that early called my attention to this practical feature and emboldened me to follow him in the use of large doses of quinine. Often has it been my experience in the treatment of entire families, during the summer and fall, for malarial fever, that, as winter came on and continued, I have been called upon to treat, in succession, most or all of the members of the same family for pneumonia. This I have seen so often and for such a long series of years as to justify the conclusion that malaria and pneumonia are frequently related as cause and effect. In pneumonia, cholera-infantum, hepatic disturbances, intestinal congestions, fevers and inflammations, as they appear in our eastern counties, I always look out for malarial complications, and direct my treatment accordingly. The free use of calomel in the beginning of these is to prevent severe congestion and inflammation, followed by alterative doses, as indicated, not forgetting the free use of quinine, having regard to the bowels, skin and pulse, constitute the principal treatment, with good nutrition, tonics and stimulants to be used as changes and conditions call for them.

In the treatment of prevailing fevers in the east the intelligent physician does not fail to adapt it to the indications of the attendant type. In one season the sthenic form predominates, in another the asthenic. In some seasons, whatever the prevailing type, the cerebral disturbances are the greatest, in others the gastric. In some years, also, malarial fevers are more resistant to ordinary treatment, and are more prone to take on a continued form, giving rise to the belief, still held by many, that another etiological factor combines with malaria in causing the fever. While the name of continued, or continuous fever, finds favor with the majority, that of typho-malarial is still claimed by some to be the most correct and expressive. However this may be, prevailing fevers seem to be modified in character and form by the physical conditions of localities and climate, as are other diseases. The mooted question remains, whether two etiological factors can be in active operation in the system at the same time, causing a hybrid disease, or a mooted form of fever.

In this connection let me relate a striking and interesting case that came under my care and treatment in the winter of 1885. The patient was a white girl of twelve years. The case, when I first saw it, was undoubted typhoid fever. Two weeks previous she had been attacked with severe malarial fever, and was, on my first visit, scarcely convalescent. Her condition was one of danger for two weeks. Then,

to my surprise, diphtheria was developed. Thus was my little patient still feeble from her malarial attack, suffering from two separate and dangerous diseases at the same time. I obtained, in consultation, the presence and services, at the bedside, of that able physician, Dr. William George Thomas, of Wilmington. We successfully combatted both diseases, but not until the sufferer had passed through the ups and downs, for several weeks, of this dangerous complication. Thus was the unusual spectacle presented of typhoid virus and of the poison of diphtheria existing in the same individual at the same time, to say nothing of the malarial poisoning.

A few words will here be in place upon Southern physicians. They are too prone to forget, in their admiration of medical brethren at the North and in Europe, that disease, as already intimated, very much derives its type and character from the topography and climate of the locality in which it appears, and that the treatment should be applied accordingly. More regard to this principle would enable us to be more successful in the diagnosis, preservation and treatment of both medical and surgical diseases. Fashion, and not science, or reason, or judgment, is too potent in inducing our invalids and sick people to seek Northern health resorts and Northern medical aid in preference to our own unsurpassed watering places. Southern methods of treating Southern diseases are more successful, in general, than are those practiced at the North upon Southern patients who go there for relief. Malaria is always more difficult to be eliminated when associated with slow, lingering diseases of any of the organs or structures. Patients, in such a condition, who go to a Northern or colder climate for health, recreation or treatment, encounter risks of getting worse, and many of them die because of the effects of such a change. Many sad and fatal cases of this kind, that occurred even within the last few years, are fresh in my recollection, and convey significant lessons. It is nothing new to assert the proneness of colder climates to develop and render more fatal Southern malaria when it is carried thence from warmer climates, and to aggravate chronic cases, which, with malarial poison in association, go North or to a colder atmosphere for treatment.

But however all this may be, let us continue to march onward to the goal of success in investigations of the etiology, pathology and treatment of disease. There are mysteries of malaria, typhoid

fever, yellow fever, cholera, hydrophobia, pyæmia, consumption and other diseases, yet to be solved. Southern scientists and Southern physicians are as able to make these investigations as are those of any part of the world. We have diseases peculiar to this Southern land, and general diseases modified by Southern topography and Southern climate, which Southern medical men can examine into successfully, and which they are able to treat with the most success.

And now, in conclusion, it is refreshing to know that, of the diseases mentioned, there is scarcely more than one or two not the result of avoidable or removable causes. The invading hosts of sanitation and general improvement, with their remarkable means and preventable measures, are more than ever coming to the rescue of the health and lives of our people. Those common enemies of the public good, in the production of fevers and other avoidable diseases, recognized in uncleanness, bad air, bad water, bad soil, bad ventilation, bad cooking and filth, are gradually leaving their old, accustomed haunts. If there is any truth in science and any dependence to be placed in patriotism and humanity in making and enforcing just and wholesome legal enactments, the days are numbered of the entire family of malarial and typhoid fevers, zymotic diseases, and other destructive, but yet preventable, diseases. The key to our deliverance is in preventive medicine, with its invincible measures of removal and means of prevention.

Let us not forget that the arch enemy of mankind, malaria, still lingers in our swamps and valleys and upon our eastern plains. Its poisonous domain still comprises a large portion of our State, embracing millions of acres of as rich swamps and fertile lands as the fairest regions of the earth present. It is under the will and dominion of man, as he wields against it the axe, the spade and the plow. Drainage and agricultural improvement are the great instrumentalities for banishing the fell destroyer from all our borders and opening up to the comfort and profit of man the magnificent regions of its present abode. Development of these great sources of wealth means not alone destruction to the deadly poison, but such an increase in the value of real estate and such an augmentation in the treasury of the State and counties as will show the expenses for the reclamation to be wise and every way profitable and judicious. Under such a health-giving and productive system the years will soon come when these vast regions of unreclaimed eastern lands will be under the dominion of profitable agriculture and the garden-spot of the State in prosperity, health and enlightened progress.

SELECTED PAPERS.

THE PROGRESSIVELY INCREASING MORTALITY OF THE CÆSAREAN OPERATION IN THE UNITED STATES.

By ROBERT P. HARRIS, M.D., of Philadelphia.

An abstract report of what I stated through Dr. W. H. Parish, before the American Gynecological Society at its late meeting in Baltimore, has been furnished our medical journals for publication in such a condensed form that it must necessarily fail in accomplishing the purpose for which the full record was prepared. The reporter, by reducing the facts to four lines, and leaving out entirely the most startling portions presented, has destroyed the progressive character of the statement. Forty years ago this country stood in the fore-front among the nations of the world in respect to its proportionate success under the Cæsarean operation; to-day, judging from the work of the last five years, we are almost at the bottom of the list. And this retrogression has taken place notwithstanding the fact that the possibility of the success of this operation in the United States, when performed under favorable circumstances, has amounted to a saving of seventy-five per cent. of the women and eighty per cent. of the children. To show that this is a possibility still attainable under proper care and management, we have only to cite the fact that, during the past year, European operators have, by the improved methods of Säger and Leopld, saved 18 out of 20 women, and 19 (possibly 20) children.

Prior to 1846, my record shows a credit to this country of 21 operations, with 13 recoveries and 10 children saved. In contrast with this, the last 21 operations, covering nearly six years, show a mortality of 18 women and 14 children; of the last, three having been destroyed by craniotomy, and one by the forceps, its cranium having been fractured.

In the decade from 1846 to 1855 inclusive, the record is as follows :

Number of operations....	25	Children delivered alive.....	13
Women saved.....	12	Children delivered dead.....	12
Women lost.....	13		

From 1856 to 1865 inclusive, ten years :

Number of operations....	25	Children living.....	10
Women saved.....	12	Children dead.....	15
Women lost.....	13		

From 1866 to 1875 inclusive, ten years :

Number of operations....	36	Children living.....	11
Women saved.....	10	Children dead.....	25
Women lost.....	26		

From 1876 to 1886 inclusive, ten and one-half years :

Number of operations....	37	Children living.....	16
Women saved.....	8	Children dead.....	21
Women lost.....	29		

As there have been five Sænger operations performed in the United States, all ending fatally, with three children lost, there must be some readily ascertainable reason for the difference of results here and in Europe. We know that these operations were performed with care, as have been many others in the last ten years, which were likewise fatal ; but the most careful of operators cannot overcome the difficulties engendered by long delay and futile intermeddling on the part of one or several accoucheurs, preceded, as in some instances, by the patient waiting for nature, of a midwife. It is one thing to operate as soon as the proper time arrives, and quite another to do it under a conviction that this time has in all probability passed many hours, some days, or even a week or two. There would appear to be an intimate connection between the living of the fœtus and the success of the operation, an association which has also been very marked in the Sænger cases. If our obstetricians had as good a knowledge of pelvimetry as prevails in the maternities of Austria, France, Germany and Italy, there would be much less delay, and fewer attempts to deliver, either by forceps or craniotomy, in cases of pelvic deformity, or other forms of obstruction. If the pelvic space is first accurately ascertained, its measure of diminution should at once determine the possibility or impossibility of delivery by version, the forceps, or craniotomy. It is certainly bad practice to fail first in craniotomy, and then be forced to deliver the destroyed fœtus, by opening the abdomen and uterus, with the increased risk to life engendered by the futile intermeddling.

The declination of the family is sometimes given as a reason for

delay ; but this objection to the use of the knife would not hold, if the parties in interest were made to understand that the operation was absolutely requisite, and that to delay was to lose the patient. Reduce the mortality, by promptness, decision and the best improvements in operation, and the dread of the knife will diminish as success becomes more frequent. Properly educate the obstetrician, and the surgeon will soon show what measure of fatality truly belongs to this part of the work. We are certainly justified, from the Sanger successes, in our claim that *per se* the Cæsarean operation is far less fatal than it has been made to appear in the United States. The *possibility* of the operation is certainly far beyond its present *probable result* in this country, as calculated from past experience.

As this statement of results has been made entirely in the interest of science and humanity, the writer hopes that our medical journals will give it the widest publicity possible. Out of one hundred and forty-four cases in my private record, sixty-three were communicated, either by the operators or by other correspondents ; hence the value of the statistics, as showing the mortality under the operation. But for these unpublished cases we should have made a much more encouraging exhibit.—*Medical News*.

WOLPERT'S AIR-TESTER.

S. W. Abbott, M.D., Secretary of the Massachusetts's State Board of Health, describes in the *Boston Medical and Surgical Journal* a method introduced by Wolpert for ascertaining the quality of the air of inhabited apartments. The instrument consists of a simple rubber bulb (A), of a capacity of 28 C.c., a glass outlet tube (B), with a constricted extremity (E). A glass test-tube (C), 12 centimetres in length and 2 centimetres in diameter, has a horizontal mark near the bottom, indicating the point to which it must be filled with perfectly clear lime-water to contain 3 C.c. The bottom of the tube is whitened, and has a black mark (D) stamped upon it. A small wooden stand, a brush or swab, a vial of vinegar, for cleaning the tube, and a bottle of clear lime-water, complete the outfit. In order

to use the instrument, the lime-water (a saturated solution) should be poured in the tube to the mark. Press the bulb with the thumb, to expel the air as quickly as possible, and allow it to fill with the air of the apartment, insert the small tube into the lime-water nearly to the bottom, and again expel the air with moderate rapidity, so that the bubbles may rise nearly to the top of the tube, but do not overflow, taking care to continue the pressure of the thumb till the small tube is removed from the lime-water. Repeat this process until the mark upon the bottom of the test-tube is obscured by the opacity produced by the reaction of the carbonic acid upon the lime-water, the observer looking downwards through the lime-water from the top of the test-tube.



With very foul air, it is necessary to examine the mark after filling and discharging the bulb a few times only ; with good air, it must be filled twenty-five times and upwards.

The bulb represented in the cut is made a little larger than the required capacity, since the small amount of residual air usually remains in the bulb and cannot be expelled without great care. After each observation the test-tube must be washed out and wiped dry. If a white incrustation forms upon the tube, it may be easily removed with a little vinegar, after which the tube should be thoroughly washed with pure water and dried.

If the mark becomes obscured after filling the bulb ten or fifteen times only, the air of an apartment is unfit for continuous respiration.

In a sick-chamber the air should be so pure that the turbidity of the lime-water will not render the mark invisible until thirty or forty fillings are made.

The instrument should be used by daylight, over a white ground, as a sheet of writing-paper, and care should be taken not to vitiate the result by the observer's own breath.

The following approximate table is taken from the article by Professor Wolpert, the first column representing the number of fillings of the bulb, and the second column the parts per 10,000 of carbonic acid in a given sample of air :

Number of Fillings.	Carbonic Acid per 10,000.	Number of Fillings.	Carbonic Acid per 10,000.	Number of Fillings.	Carbonic Acid per 10,000.
1	200.	21	9.5	41	4.9
2	100.	22	9.1	42	4.8
3	67.	23	8.7	43	4.6
4	50.	24	8.3	44	4.5
5	40.	25	8.	45	4.4
6	33.	26	7.7	46	4.3
7	29.	27	7.4	47	4.2
8	25.	28	7.1	48	4.1
9	22.	29	6.9	49	4.1
10	20.	30	6.6	50	4.
11	18.	31	6.4	51	3.9
12	16.	32	6.3	52	3.9
13	15.	33	6.1	53	3.8
14	14.	34	5.9	54	3.7
15	13.	35	5.7	55	3.7
16	12.5	36	5.5	56	3.6
17	12.	37	5.4	57	3.5
18	11.	38	5.3	58	3.5
19	10.5	39	5.1	59	3.4
20	10.	40	5.	60	3.3

COCAINE IN OBSTETRICS.

By BARTON C. HIRST, M.D., one of the Visiting Physicians to the Maternity Hospital.

In the wards of the Maternity Hospital I have had an opportunity of using cocaine in a sufficiently large number of cases to convince myself of its efficiency in alleviating, if not entirely annulling, the pain of the second stage of labor, especially in its latter part, when the child's head begins to distend the lower portion of the vagina and the perineum. To still the cramp-like pain of the first stage of labor, I believe chloroform will still be found to be lost.

From the notes of a number of cases I select the two following :

Case 1.—A. B., primipara, aged twenty-two; labor began at 3 A. M., July 27, 1886. As the cervix was being dilated, and the head began to descend, the woman showed signs of great suffering, threw herself about the bed, became livid in the face; at 5 P. M. the first application was made; almost immediately the patient became quiet, and remained so till the birth of the child, of which she said she was hardly conscious; in all, there were four applications made from 5 P. M. to 8 P. M., the hour of the birth.

Case 2.—Mrs. D., aged twenty-four, primipara; labor began at 6 P. M. August 9, 1886. Os fully dilated at 1 A. M. August 10th. Child delivered at 5 : 55 A. M. As the head began to descend, and from then till the birth of the child, cocaine was applied every half-hour; for that length of time the woman, who was quite intelligent, said that the local anæsthesia was almost complete; at the end of that time, however, the effect of the drug seemed to wear off. The preparation used was an ointment of the strength of four per cent., applied with the finger, as evenly as possible, to the mucous lining of the vagina and to the skin of the perineum.—*Medical News.*

ON THE USE OF IODOFORM IN VENEREAL DISEASES.

The employment of iodoform in the treatment of venereal affections, though advocated as far back as in 1857 by Von Maitre, did not attain any repute with the profession until the disclosure of the eminent antiseptic virtues of the drug created a new and rationally founded base for its therapeutic exhibition. The fall of the previously excessively high price of the drug taking place about the same time aided, of course, no little the growing popularity of the remedy.

A decade or more having passed since the general introduction of iodoform into the therapeutics of venereal diseases, a critical review of the results of its clinical trials obtained thus far will be a study both timely and instructive.

Dr. Max Bockhart, treating of the same subject in the *Monatsshefte für Praktische Dermatologie*, No. 1, 1886, has collected all pertinent literary material with such care and painstaking, that no

abler guide could be selected for our discussion. We cannot, of course, view any other aspects of the proposed subject than those pertaining directly to the therapeutic practice. The following divisions recommend themselves for convenience' sake :

1. Iodoform in the treatment of gonorrhœal affections.
2. Iodoform in the treatment of soft chancres and buboes.
3. Iodoform in the treatment of syphilis.

I. IODOFORM IN THE TREATMENT OF GONORRHEAL AFFECTIONS.

Watson Cheyne, in 1880, first proposed iodoform as an application in gonorrhœa. He employed iodoform bougies made from cacao butter, with the addition of eucalyptus. This author claimed that by allowing the bougie to remain in the urethra for four to five hours daily, and by using astringent and antiseptic injections besides, the gonorrhœal inflammation could readily be controlled in seven to ten days. Campana recommended in the first stage of an gonorrhœal urethritis an injection consisting of 6 dr. of iodoform and 3 grains of carbolic acid in 3 oz. of glycerin and 1 oz. of water. The researches of Mandl, Tarnowski, Keyes and Bockhart, however, could not verify the observations of Cheyne and Campana, and it soon became a therapeutic maxim that iodoform exerted not the slightest favorable influence over gonorrhœal inflammations of mucous membranes. Indeed, Bockhart even ascertained that a gonorrhœa of females treated exclusively with iodoform lasted longer than the cases treated with the usual disinfectant and astringent solutions.

Gonorrhœal epididymitis has also, and even sooner than gonorrhœal urethritis, been treated with various preparations of iodoform. Alvares proposed in 1877 the iodoform ointment, later Kurz the glycerite of iodoform, and finally Pape and Fischer the iodoform plaster. All of these authors claim to have obtained satisfactory results with iodoform in epididymitis, though Bockhart's experience could again not confirm them.

In erosions and ulcers of the cervix, however, such as are apt to follow a chronic gonorrhœa, iodoform, as all authors agree, renders the best of services. Dr. Wolf, of Würzburg, has the merit of having established a method of applying iodoform in these lesions which, in simplicity and promptness, surpasses all others. He fills little gauze sacks of the size of a chestnut, with finely-powdered

iodoform, and places them on the seat of the affection, where they are retained for twenty-four hours by means of cotton tampons. Previously the vagina, especially its cervical portion, is carefully washed out with two per cent. solutions of carbolic acid. Thus treated, even large erosions and ulcers disappear often in two to three weeks. To summarize, then, the first portion of our discussion, we may say that iodoform is of no service whatever in the treatment of gonorrhœal inflammation, but can claim for it a curative influence over ulcers and erosions of the cervix.

II. IODOFORM IN THE TREATMENT OF SOFT CHANCRES AND BUBOES.

Isard and Lazansky claim the credit of having first called attention to the advantages derived from iodoform in the treatment of soft chancres. Isard laid particular stress upon the fact that the new remedy produced no pain by its application, and that, compared with the formerly used means, its action was prompt and quick. He employed iodoform both as powder and in form of suspension in alcohol and glycerin (iodoform 45 grains, alcohol $2\frac{1}{2}$ dr. ; or, glycerin, 1 oz.), the former in superficially seated ulcers, the latter when cavities or concealed regions were to be reached. Lazansky introduced still another form of its application, viz : an ethereal solution (1 : 15 to 30), which is especially eligible when a protracted irrigation—as in phagedenic ulcers of the anus—is desired. Tarnowski noted that, under the influence of the iodoform treatment, the ulcers rarely assumed a phagedenic nature, and that by the rapid elimination of the specific detritus the danger of auto-infection was materially lessened. Nearly all observers agree that treated with iodoform the soft chancre loses in about two weeks its contagious character and enters the stage of reparation. In small chancres a strong ethereal solution, applied three times daily, will give the best results ; in larger ones Unna's ether-spray or the powder-dressing recommend themselves. Unna and Bockhart declare that the ethereal solution of iodoform, providing the ulcer with a suitably thin layer of the drug, gives better results than the powder itself. In soft chancres situated in the phimotic prepuce, Isard's suspension of iodoform in alcohol and ether, as stated above, is a choice application in phagedenic or diphtheritic ulcers ; the powder is preferable, and in chancres located in the urethra iodoform bacilli are indicated. The introduction of Unna's grated

iodoform-mull into the therapeutics of the soft chancre (*vide Monatshefte für Praktische Dermatologie*, 1884, p. 242) deserves an especial mention as a decided progress in the technique of dermatological practice. To epitomize the above, we may assume from the exceedingly rapid and favorable action of iodoform upon all kinds of soft chancres that the drug is a specific against the virus of the soft chancre. At least it is certain that no other drug, if it be salicylic acid, resorcin or nitrate of bismuth, can even approximately be compared with iodoform in healing effects upon the soft chancre. We can also add that these effects do not refer to the mechanical absorbent action of the powder-dressing, for other powder-dressings, such as those of nitrate of bismuth or oxide of zinc, do not have the same curative influence. We are compelled to believe in a chemical influence of the iodoform upon the virus of the soft chancre.

In the therapeutics of suppurating buboes resulting from soft chancres iodoform claims the character of a sovereign remedy. Isard and Petersen even credit the drug with abortive or preventive virtues regarding this suppurative inflammation, the former employing for the purpose iodoform ointment, the latter iodoform colloid. Still, this abortive power attributed to iodoform is not universally acknowledged. Very certain, however, is it that suppurating buboes under the iodoform treatment heal twice as rapidly as under the old forms of treatment. Under an exactly applied iodoform dressing, and strict observance of antiseptic precautions, the opened bubo never becomes phagedenic, diphtheritic, or chancreous in nature.

The principal methods of applying iodoform in suppurating buboes deserve to be especially alluded to :

1. Lazanski puts iodoform into the disinfected wound, and applies cotton lint (charpie), caoutchouc-paper, and a roller bandage over it, changing the dressing every twenty-four hours.
2. Martini employs precisely the same method, with the addition of scraping the wound with the sharp spoon.
3. Petersen's plan is undoubtedly the most perfect one. He employs what is known as the occlusion dressing, adding pressure to the dressing, as stated above. In this dressing flannel bandages only are used. With a perfectly-fitting occlusion-dressing the patient is well able to walk about with impunity.

Hence the conclusion to be arrived at from the foregoing statements is that iodoform is an unexcelled remedy in suppurating inguinal buboes, and that it is best applied by the plan proposed first by Petersen.

II. IODOFORM IN THE TREATMENT OF SYPHILIS.

Iodoform has been tried partly as a substitute for mercury by those opposed to the mercurial treatment of syphilis, and partly in place of iodide of potassium in the treatment of the tertiary forms of syphilis. The estimation of various observers of the value of iodoform as an antisypilitic remedy varies materially. Von Maitre recommended first its internal use in syphilis, and claimed that 45 grains could be ingested daily with impunity. Davenport gave it in secondary syphilis, together with iron. Lazanski gave daily to twenty syphilitic patients (tertiary form) six to eight pills each, consisting of $1\frac{1}{2}$ grains of iodoform, and pronounced the action of the drug very efficacious. Moleschoff, likewise, eulogized iodoform in syphilis, and called attention to the fact that this drug is much more slowly eliminated from the economy than mercury, and is for this reason thereapeutically more active than the latter.

Other authors, however, like Zeissl, Strokowski, Tarnowski and Mraceck, after careful and numerous observations, have come to the conclusion that iodoform given alone internally in syphilis is but little reliable and useful. It is to be added that the drug causes certain secondary symptoms, such as gastric disturbance, vomiting, an acne-like eruption and nervousness, rendering its exhibition practically ineligible. Although the percentage of iodine contained in iodoform is much larger (ninety-six per cent.) than that contained in iodide of potassium (seventy-six per cent.), it is, nevertheless, possible to introduce into the system by the latter drug in a short time far greater quantities of iodine than by the former. Besides, iodoform cannot be taken with impunity in larger daily doses than 15 grains, while of iodide of potassium much greater quantities are well borne.

The results obtained with subcutaneous injections of iodoform, as proposed by Bozzi in 1870 and Thomann in 1881, are sufficiently satisfactory to engage our interest. The latter employed the glycerite of iodoform (6 to 20), and iodoform dissolved in oil of almonds

(0.3 to 6), using as an average dose as much as 12 grains of iodoform. Both in recent and in tertiary syphilis these authors obtained very gratifying results, 3 to 4 dr. of the drug being required for the cure of tertiary lesions. The local reaction after injections of iodoform is immaterial; the pain soon passes away, as do the induration and redness of the place of injection. An abscess has been recorded in only a single instance. Neumann used besides glycerin still other vehicles for his subcutaneous injections of iodoform, such as ether (1 to 15), and ether and olive oil (5 ää).

Neumann found by experiments on animals that from the glycerite of iodoform $\frac{1}{2}$ grain of iodoform, and of the ethereal solution $\frac{2}{3}$ grain of iodoform were resorbed daily. In a case where Mraceck had given in thirteen days $1\frac{1}{2}$ dr. of iodoform, he noted the elimination of the drug in the urine for a period of forty days. In another case Thomann found iodine in the urine forty-three days after the last injection of the glycerite of iodoform. These observations demonstrate that the glycerite of iodoform applied subcutaneously acts similarly as calomel applied hypodermically: from the drug deposited into the cellular tissue small quantities are being constantly and for a long time dissolved, and enter the circulation. This peculiar action of iodoform renders the drug particularly eligible in the light tertiary forms, while in the grave gummous processes, necessitating the rapid introduction of larger quantities of iodine, iodide of potassium, being more rapidly and in greater quantities resorbable, is far preferable. In conclusion, the beneficent action of iodoform in syphilitic neuralgia is to be mentioned. Daily doses of 15 grains of iodoform, taken in pill form, are regarded as a promptly-acting remedy.

To resume the above, we find iodoform as an antisyphilitic remedy inferior to iodide of potassium, surpassing the latter only in syphilitic neuralgia. Employed subcutaneously, however, the drug, especially in the light tertiary forms, produces a far more constant and effective an action on the organism than iodide of potassium.

THE PHYSICAL ACTION OF IODOFORM.

Our knowledge of the physiological action of iodoform has in the last few years been materially enriched by the labors of Prof. Binz and other German observers. Let us review, in brief, the

essential features of the physiological action of the drug. Placed upon an ulcerating surface, iodoform is gradually dissolved by the fatty substances present in that locality, and liberates iodine in the presence of oxygen and light or of oxyhæmoglobine and living cells. It is to the thus continually generated free iodine that the antiseptic and antibacterial virtues of iodoform are to be ascribed. The action of iodoform upon the blood-corpuscles is a very singular one: it prevents their emigration from the blood-vessels by paralyzing the protoplasm of the blood-cells, and besides, prevents the formation of giant-cells. The analgesic effects of iodoform upon ulcers are explained by Binz as being due to a paralysis of the axis cylinder of the exposed nerve termination produced by the liberated iodine. The iodine enters also the juices of the body and associates with their albuminous constituents, the thus formed albuminate of iodine being, however, soon decomposed into an iodide and an iodate. In tissues or an acid reaction (the cortex of the brain and gastric mucous membrane) iodine regains its former state of integrity, and again reacts upon the cells of the part. This explains the partly irritating and partly depressing influence of iodoform upon the cervical cortex and its tendency to provoke serious gastric disturbances. Experiments made upon animals revealed fatty degeneration of the heart, the liver and the kidneys as the result of the action of iodoform. Even after the ingestion of large quantities of iodoform, the resorption from the intestinal tract is very limited as compared with the resorption proceeding from granulating surfaces and wounds. In the urine iodoform appears as an iodide and an iodate. This elimination proceeding, however, very slowly, the action of the drug upon the economy is evidently a prolonged one.

We cannot conclude our discussion without referring, with a few words, at least, to the intoxication phenomena, as occasionally recorded after the application of iodoform. In the first place, we mention the acne not rarely observed after the internal and subcutaneous employment of iodoform, resembling closely the acne produced by the internal use of iodide of potassium. Besides this acne a peculiar exanthematous dermatitis is often observed after the external application of the drug, especially in presence of a certain predisposition on the part of the patient. This eruption is readily cured by a dressing with argillaceous earth, or with a two per cent. solution of carbolic acid in alcohol. Grave cerebral intoxications, such as frequently described

by surgical writers, occur but rarely in the treatment of venereal affections, unless it be in presence of the idiosyncrasy mentioned above. Besides, iodoform is no longer used in such large quantities as was practised in the past. Oberländer reported two grave intoxications with iodoform which deserve to be noted. Two syphilitic patients, who had received 10 dr. of iodoform in eighty days, i. e., 75 grains in seven days, showed threatening cerebral symptoms, such as coma and collapse, which persisted for a long time, and finally passed away.

To disguise the repulsive odor of iodoform many agents have been proposed, among which we mention cumarine, the tonga-bean, the oil of peppermint, the oil of bitter almonds, Peruvian balsam, Muscat balsam, tannic acid, and recently pulverized roasted coffee. This agent being itself an antiseptic, and incorporable with iodoform in any proportion, is undoubtedly the safest, as it is the most effective of all substances recommended for the disguise of the odor of iodoform. If the chancreous ulcers of the penis are treated with Unna's grated iodoform plaster-mull, the taste of the drug is easily disguised by fixing a layer of odorized cotton (with cumarine) over the plaster.—*Therapeutic Gazette*.

MILITARY DRILL AND GYMNASTIC TRAINING IN PHYSICAL CULTURE.

By E. M. HARTWELL, PH.D. of Johns Hopkins University, in remarks made at the meeting of the Section in Clinical Medicine, Pathology and Hygiene of the Massachusetts Medical Society, Suffolk District, June, 1886.

I feel some embarrassment in standing here as an advocate of the superiority of gymnastics over military drill as a means of physical training for school-boys, since, in so doing, I am obliged to dissent from the views of General Moore, who was formerly my commanding officer. I suppose that, as one of his orderly-sargents in the Latin School Battalion, I passed the climax of my self-importance. I thought then that the drill was a very good thing. I think now that it did the other boys good, and that it did me

good, but I am compelled to think, as the result of my reading, observation and experience, that, while much good may be accomplished through military drill in boys' schools, very much more good can be attained through a well-devised and intelligently-managed system of gymnastics.

It is a noteworthy fact that physical training has always owed much to lessons learned in war. Under the sting of defeat, or the stimulus of victory, the most enlightened and the rudest nations have alike been impelled to give to bodily training a place in their schemes for the education of their youth. It was in the half century following the victories gained by the Greeks over the Persians, that Greek gymnastics saw their palmiest days. It was then that the gymnasia furnished the finest models for the noblest specimens of the sculptor's art. Although the Greek training was chiefly general and educational in its aims, it embraced certain exercises of a martial character. The Northern archers made such an impression upon the English at Hastings, that centuries elapsed before English law-givers ceased to legislate for the training of the people in "Shooting."

An English law passed in 1388 required servants and laborers "to have Bows and Arrows and use the same the Sundays and Holydays, and leave all playing at Tennis or Football and other Games called Coits, Dice, Casting of the Stone, Kailes and other such importune Games." Henry VIII. caused Parliament to enact, in 1511, that "every man being the King's subject, not lame, decrepit or maimed ; being within the age of sixty years, except spiritual men, justices of the one bench and of the other, justices of the assize and barons of the exehequer, do use and exercise shooting in long bows, and also do have a bow and arrows ready continually in his house, to use himself in shooting ; and that every man having a male child or men children in his house, shall provide for all such, being of the age of seven years and above, a bow and two shafts, to learn them and bring them up in shooting." Each village was, in 1541, required to maintain a pair of archery butts. It would seem that this statute was held to apply to school-boys and collegians. It is noteworthy that certain playgrounds at Eton and Harrow, respectively, are still termed the "Shooting Fields" and "the Butts." The English took the lessons of the Crimean War so deeply to heart that, great as is their aversion to gymnas-

tics, they introduced gymnastic drill into the army in imitation of their neighbors on the Continent.

The quickening and shaping influences of the Napoleonic Wars, of the War of Liberation, and of the wars with Austria and France, are clearly discernible as potent factors in the development and organization of the German system of physical training. France has, since 1871, organized an elaborate system of physical training, embracing both gymnastic exercises and military drill in connection with all its public schools for boys.

We in America occupy no exceptional position in this matter, unless it be that we are preternaturally slow to profit by the experience of other nations. The first attempts in America to promote physical training were of a military character. On January 21, 1790, President Washington transmitted to the first Senate of the United States a comprehensive report from General H. Knox, the Secretary of War, on a plan for "a national defense system adequate to the probable exigencies of the United States, whether arising from internal or external causes." The plan called for the enrollment of those liable to bear arms into three classes: the first comprehending the youth of eighteen, nineteen and twenty years of age, to be denominated the advanced corps; the second class including the men from twenty-one to forty-five years of age, to be denominated the main corps; the third class comprehending, inclusively, the men from forty-six to sixty years of age, to be denominated the reserved corps. It failed, however, of adoption, although the need of a well-trained militia had been sharply and abundantly emphasized by the events of the Revolutionary War. The failure was attributed to the great expense and the administrative difficulties which it was believed it would entail.

In 1792 a United States law was passed, which is still in force, I believe, requiring the enrollment of "all able-bodied male citizens of the respective States" between the ages of eighteen and forty-five years. All enrolled citizens are required to be "constantly provided with a good musket or fire-locket, * * * a sufficient bayonet and belt, two spare flints, and a knapsack, a pouch therein to contain not less than twenty-four cartridges, * * * or with a good rifle, knapsack, shot-pouch and powder-horn, twenty balls suited to the bore of his rifle, and one-fourth of a pound of powder." So far as I know, neither the Boston School Regiment, nor any other regiment, complies with the requirements of this law.

In 1817, in a report of the organization of the militia, made to the House of Representatives by Mr. Harrison, it was recommended that "military instruction should not be given in distant schools, but that it should form a branch of education in every school within the United States; *that a corps of military instructors should be formed to attend to the gymnastic and elementary part of education in every school in the United States*, whilst the more scientific part of the art of war should be communicated by professors of tactics, to be established in all the higher seminaries." It does not appear that this scheme, or anything like it, ever received the sanction of law, although it was again brought forward for adoption in 1819.

Meanwhile, the United States Military Academy at West Point, in New York, had been instituted for the professional training of army officers. Yet the bitter lessons of the war of the Revolution had to be enforced by those of the War of 1812 before Congress could be induced to make anything like adequate provision for such training.

At West Point, bodily training, under the heads of military instruction and sword exercise, has received marked attention from the first. Dancing is now regularly taught, and gymnastics and swimming have at times been regular branches of instruction. The United States Naval Academy dates from the year 1845. Both at West Point and Annapolis the course of study is characterized by an extended, varied and exacting system of bodily exercise, as embraced in the various drills and branches of practical instruction. The absolute control and constant supervision and inspection to which all cadets are subjected, as regards deportment, dress, studies, exercise, recreation, diet and rest, are productive of a vigorous manliness, which is much less uniformly found in the graduates of other institutions. I am strongly convinced that the best that has as yet been accomplished in the United States in physical training has been accomplished at West Point and Annapolis, but nothing can be clearer than the fact that only a very small part of the training there in vogue is what is understood as military drill in the Boston schools.

Alden Partridge, captain of engineers in the United States Army, who was for a time Superintendent of the Military Academy, seems to have been the first person to found an institution modelled after that at West Point. Captain Partridge left the Military Academy in 1817, and in 1818 resigned from the military service of the Government. In a lecture delivered by him in 1820, on what he considered

to be the deficiencies of superior education, as then conducted, Captain Partridge spoke as follows:

"Another defect in the present system is the entire neglect, in all our principal seminaries, of physical education. The great importance, and even absolute necessity, of a regular and systematic course of exercise for the preservation of health, and confirming and rendering vigorous the constitution, must be evident to the most superficial observer. That the health of the closest applicant may be preserved, when he is subjected to a regular and systematic course of exercise, I know from practical experience; and I have no hesitation in asserting that in nine cases out of ten it is just as easy for a youth, however hard he may study, to attain the age of manhood with a firm and vigorous constitution, as it is to grow up puny and debilitated, incapable of either bodily or mental exertion."

Captain Partridge opened his American Literary Scientific Academy at Norwich, Vermont, his native town, September 4, 1820. In 1825 he removed his seminary to Middletown, Connecticut, where he remained for three years. He was doubtless impelled to abandon his seminary there from the refusal of the Legislature of Connecticut to charter the institution as a college. He was instrumental, in 1834, in rehabilitating the institution at Norwich, which became known as "Norwich University," and in establishing military schools at Portsmouth, Virginia, in 1839, at Brandywine Springs, Delaware, 1853, and at Bristol, Pennsylvania, in 1853, the year of his death.

A considerable number of military schools and colleges, additional to those above mentioned, were organized before the War of the Rebellion. The more important of them were established in the Southern States, and were in several cases subsidized by the State. This was notably the case in Virginia, South Carolina, Louisiana, Kentucky and Alabama. The Virginia Military Institute, at Lexington, Virginia, the Military Institute at Frankfort, Kentucky, and the Louisiana State Institute, at Alexandria, Louisiana, should be mentioned in this connection. It has been estimated that "one-tenth of the Confederate armies was commanded by the *élèves* of the Virginia Military Institute, at Lexington, embracing 3 major-generals, 30 brigadier-generals, 60 colonels, 50 lieutenant-colonels, 30 majors, 125 captains, 200 to 300 lieutenants. General "Stonewall" Jackson was long a professor in the Virginia Military Institute. General W. T. Sherman, of the United States Army, was in 1861 the head of the

Louisiana State University, which had been organized on a military basis in the previous year. At the North the military plan of education was chiefly adopted by the proprietors of private schools for boys.

Once the war opened, military drill assumed a new and unprecedented interest in the eyes of school authorities. The educational literature of that period teems with schemes for the introduction of gymnastics and military drill into public school courses. As early as 1861 military drill was introduced into a portion of the public schools in the city of Bangor, Maine; and the State of New Jersey, about the same time, made an appropriation of money for military instruction in her normal school.

Elementary military drill was experimentally introduced into the Public Latin, English High, Eliot and Dwight Schools for boys in Boston in 1863. It has since been eliminated from the grammar schools, to which class the Eliot and Dwight belong, but has been introduced into all the high schools of the city for males.

There are not far from sixty schools and colleges, in various parts of the country, in whose course of instruction military drill is given a prominent place. Public schools are not included in this number, but in nearly half of the number the military drill is in charge of an army officer, specially detailed in accordance with the Morrill Act of 1862, whose purpose was to promote the organization of State Mechanical and Agricultural Colleges.

The aim of the school system of Boston is, I take it, a general one, namely, to prepare boys and girls to enter with profit, at a later stage of their development, upon courses of special training for their life-work, and the question under discussion is not whether military drill, by itself considered, is helpful or harmful, but whether so much of military drill as is laid down for a portion of the school-boys of Boston constitutes an adequate system of physical training.

I freely admit that the setting up drill, the manual of arms and the marching movements as taught by General Moore are valuable; that they promote healthful growth and development to a limited degree; and that they subserve certain ends of mental and moral discipline. But I hold that they are so narrow, unnatural and technical that they cannot be made to meet the legitimate demands of a sound system of general physical training. Such gymnastic exercises as you have witnessed here this evening demonstrate very satisfactorily, it seems to me, the superiority of gymnastic to military drill. But it should be

borne in mind that these exercises constitute but a small portion of the exercises which are comprised in any system of school gymnastics worthy to be so designated. It need hardly be said that no comprehensive system of gymnastics has ever been attempted in the Boston schools. No city in the United States, unless it be Kansas City, in Missouri, has as yet worked out or adopted a system of school gymnastics that will bear comparison with the systems now in vogue in the schools of the principal cities of Germany, Sweden and Norway, France, Switzerland and Austria.

It will be best to confine our attention to the German system of physical training, and more especially to that in vogue in Prussia.

The German for gymnastics is *Turnkunst* or *Turnen*. *Turnplatz* and *Turnhalle* correspond respectively to our terms out-door gymnasium and gymnasium, which latter ordinarily signifies a building for gymnastic exercises. A gymnasium, in the German sense, is the highest of the secondary schools, and leads directly to the University.

German gymnastics embrace three well-marked fields, or departments, namely, *Volketurnen*, or popular gymnastics; *Schulturnen*, or school gymnastics; and *Militärturnen*, or military gymnastics. The organization of the last two departments is maintained and controlled by the Government for strictly educational purposes; whereas the *Turnvereine*, as the societies of the turners are called, are voluntary associations of a social and semi-educational, but wholly popular and patriotic, nature. The germ of the turning system is to be found in the martial games and exercises of the ancient Teutons.

Volksturnen was the first to develop. It had its beginning in the period of Prussia's deepest distress and humiliation—the period between the victory of the French at Jena, in 1806, and the War of Liberation, in 1813. The turning became a popular institution and a potent factor in the development of Prussia was largely due to "Father Jahn," as the turners call him.

Jahn was an ardent patriot. His strong and rugged nature, and his eager, restless, passionate spirit, qualified him for popular leadership in the movement which he initiated. He seized the idea of making bodily training a force in national regeneration and education, and dreamed and wrote and labored for a free and united Germany.

The turners did notable service in the campaigns against the French, and great enthusiasm for gymnastics was kindled all over Germany. From 1819 till 1842 the *turnvereine*, as the gymnastic societies are called, were not suffered to exist by the Government.

Quinan, as this basis affords a good opportunity for the Faculty to proceed to occupy this surrendered, but valuable, territory.

It seems to us that Baltimore can no longer fail to approve the passage of such a law ; in fact, the times seem ripe for its prompt enactment. That city is one of the most popular centres of Southern trade and education, and its patronage comes largely from States having good license laws. It is also a city having medical schools of distinctly different grades—a condition of things that the unwary student who consults only his purse finds out, but too late, when he is himself a defeated candidate before the Board of Examiners of his own State. This is a great injustice, but would find its remedy if the teaching and diploma-awarding bodies were in no way connected with each other.

Furthermore, Maryland, as we are informed, is, or will be, at no distant date, between States—Pennsylvania and Virginia—requiring a license, and therefore is fast becoming a favorite resort of quacks of all sorts, flocking there to enjoy the pursuit of gain without any legal restrictions.

We do not look upon Boards of Examiners as the cure for all the ills which beset an over-crowded profession, as all know who have studied the action of such laws that the good results are not immediately seen ; but next to good preliminary education—and in this we include all the training the boy gets from his mother's knee until the day he matriculates at a medical college—nothing promises so much future good as well organized licensing bodies independent of the colleges. This opinion, though, is becoming a settled one among the profession, and we are only sorry to note that the opposition comes more largely from the medical colleges than elsewhere, and their opposition being that of well organized corporations, it is very hard to overcome.

We look for good results from the efforts of the Maryland Faculty, and, although they may have vexatious delays, the times are ripening for ultimate success.

Prof. C. S. Sargent discovered last summer, in this State, a new station for the rare *Shortia galicifolia*, in Michaux's line of travel.

DR. LAURENCE JOHNSON.

It gives us pleasure to note that Dr. Laurence Johnson has been chosen President of the New York County Medical Society. Dr. Johnson is a general practitioner of the solid conservative sort, which one meets in New York and enjoys as the "staff of life" of the profession in that great city, where the specialist apparently eclipses every one else. As a physician, as a naturalist, as a member of the Committee of Revision of the Pharmacopœia, as a citizen of integrity, the New York County Society could not have honored one who will honor them more.

PULSE INVARIABILITY IN MENSTRUATION, REGARD-
LESS OF POSTURE.

The fact that the pulse of the normal male beats from ten to fifteen strokes more per minute when the body is in a vertical position than when lying down, has long been recognized, and until a very recent period it was assumed that the same difference existed in the pulse of the female. Graves first pointed out that in cases of cardiac hypertrophy the pulse remains constant in all positions. More recently, Jorissenue discovered that in pregnancy the same constancy exists in the female, and suggested this fact as a diagnostic test of that condition. *La France Medicale* now announces that M. P. Louge, intern of the Marseilles Hospital, has discovered that in women there exists during the menstrual flow the same constancy of pulse in all positions of the body. It is exceedingly difficult to account for this phenomenon by any known physiological law. Cardiac hypertrophy cannot be invoked, and the only hypothesis that I can suggest is that there is an augmentation of the tension of the blood during menstruation—a suggestion which seems to be supported by certain clinical phenomena of the catamenial period.—*St. Louis Medical and Surgical Journal*.

SOCIETY REPORTS.

GYNÆCOLOGICAL AND OBSTETRICAL SOCIETY OF BALTIMORE.

REGULAR MEETING, HELD OCTOBER 12, 1886.

Dr. Thomas A. Ashby read a paper on

DILATATION OF THE CERVICAL CANAL FOR STENOSIS OF THE INTER- NAL OS UNDER COCAINE.

It may be stated, without fear of contradiction, that the limits to the successful application of cocaine as a local anæsthetic have not yet been reached. The startling results following the introduction of this agent have been phenomenal and unprecedented in the history of medical discoveries. Scarcely had Dr. Koller made his observations before the event was spread over the entire globe, and surgeons in every country have vied with each other in successful experimentation with the newly discovered properties of the agent. Following close upon the local use of cocaine to mucous surfaces, it was demonstrated by Dr. Corning, of New York, that injections of the solutions of the drug into subcutaneous tissues, associated with circumscribed constriction of the surrounding parts, induced successful anæsthesia in the area into which the drug was injected. This discovery opened up a new field for local anæsthesia—a field which has been most diligently cultivated with results of the most astonishing character. Amputations of limbs, removal of circumscribed growths, laparotomy, circumcision and closure of hare-lip, are among the operations painlessly performed after the method inaugurated by Dr. Corning.

There is no longer a shadow of doubt as to the value of cocaine as a local anæsthetic, and its employment in surgical work is now only limited to the choice and care of the operator. All mucous surfaces are readily brought under its anæsthetic influences when solutions of sufficient strength are properly and carefully applied to the mucous membrane. The stronger the percentage of the solution, and the greater the length of time employed in its application,

the deeper its penetration, and the more profound its benumbing influences.

My experience with cocaine convinces me that it may be employed with the greatest advantage in surgical gynecology, and that many operations upon the vagina and uterus, hitherto requiring general anæsthesia, may be successfully and painlessly performed when solutions of cocaine of sufficient strength are carefully applied to the tissues. I have employed cocaine in gynecological work in a number of conditions with almost uniform satisfaction. A recent experience with this drug has induced me to relate the following case, which I think explains very satisfactorily its benumbing influence upon the cervix uteri.

Mrs. H., aged 23, married 18 months, has suffered from her first menstruation with violent dysmenorrhœa. The menstrual flow has invariably been announced with violent cramps, pains and disturbances of digestion. During three or four days of menstruation the recumbent posture has been required, and a total inability to engage in domestic duties has been almost constant.

Though married 18 months, Mrs. H. has never conceived. Physical examination revealed a small uterus, occupying a low position in the pelvis. The uterus was very acutely retroflexed. The cervical canal was bent and so small as scarcely to admit the smallest probe. There was evident stenosis at the internal os. The diagnosis of obstructive dysmenorrhœa was established, and the dilatation of the canal was proposed for its relief.

The patient was averse to taking chloroform or ether, and expressed a willingness to endure the operation of divulsion with the use of cocaine. After a few days of preliminary treatment, consisting chiefly in the use of hot water injections and attention to the stomach and bowels, the operation was undertaken. One-fourth grain of morphia was administered 15 minutes prior to placing the patient on the table, and at the same time a cone containing one grain of cocaine, with 5 grains of boracic acid, two drops of oil of wintergreen and coco-butter q. s., was introduced into the vagina. The operation was then begun. The cone had melted promptly and was removed in a liquid state. The vagina was sponged out with warm water rendered antiseptic with bichloride of mercury (1 to 4000). A small sound was passed into the uterus and the fundus lifted up. The sound withdrawn, applications of cocaine

were made at intervals of every 3 or 4 minutes to the cervical canal and to the vaginal cervix. The parts were benumbed as thoroughly as possible. The small bivalve dilator was next passed, and the canal stretched so that it would admit of the introduction of the larger blades of Ellinger's dilator. Before divulsing with Ellinger's instrument cocaine was again applied. In fact, the solution was used repeatedly during the operation. When I had succeeded in stretching the blades of the dilator to nearly their full extent the instrument broke under the strain of the pressure with a sudden snap, which startled my patient. Apart from this she experienced no pain, and expressed herself as ignorant of what was going on.

After removing the blades of the dilator I passed a No. 14 sound into the uterine cavity. Whilst the divulsion was not as complete as I desired to make it, in consequence of the breakage of the dilator, its good results were unquestionably shown. The patient was kept in bed one week. Menstruation came on on the fourth day after the operation without pain and without nausea. The first sign manifest to the patient was the appearance of the blood on her linen. The result was surprising to her, as such freedom from distress was an unknown quantity in her history. Mrs. H. is now wearing a retro-urine pessary, and is at present in comfortable health. As she has not passed through her second menstruation since the operation, I am unable to state what influence it will have upon her future health. I relate the case to show the fact that divulsion can be performed with cocaine without pain. I claim no originality for this use of the drug, but simply offer this testimony to induce my colleagues in gynaecological work to give the drug a trial, if they have not previously employed it for this purpose.

The strength of the cocaine solution used was 4 per cent.

DISCUSSION.

Dr. B. B. Browne said he had reported about two years ago two cases in which he had used cocaine in dilatation of the cervical canal. Since then it was his habit, in office practice, when slight dilatation is required, he prefers full anæsthesia, but he has used the cocaine successfully in two such cases. In two cases of acute ante flexion he injected 20 drops of a 40 per cent. solution into the uterine tissue near the point of flexion. In a few minutes he was able to pass a sound without pain, and also to apply cotton saturated with cocaine-

He thinks that by its effect on the circulation it tends decidedly to prevent the occurrence of cellulitis after local interference. He applies it to the cervical canal on cotton wrapped around a probe.

Dr. L. E. Neale said he would like to ask for information if any gentleman present had had experience with the use of cocaine by hypodermic injection. He thought the method of administration of great importance in judging the effects of the drug.

Dr. W. T. Howard said that so far as he knew Dr. W. M. Polk, of New York, was the first, about two years ago, to use the hydrochlorate of cocaine as a local anæsthetic in the operation of trachelorrhaphy. He used it in two cases. Having previously douched the vagina with warm water, the cervix, the pious cervical canal and the vaginal walls adjoining the cervix were washed with castile soap; this, in turn, was washed off, and the surface carefully dried. Then a 4 per cent. solution of cocaine was thoroughly painted, with a camel's hair-brush, over the cervix, in the canal, and over the adjacent vaginal wall. This was done three times, allowing an interval of three minutes between each application. In one case the operation lasted 40 minutes, and there was no complaint of pain till the last 10 minutes, when an uncomfortable soreness was felt. Soon after the publication of these cases Dr. Howard had operated on a number of cases of lacerated cervix, pursuing essentially the plan used by Dr. Polk, and with similar results. Dr. Howard had noticed, however, that in passing the needles through the lips of the cervix, in the usual way, with the silk loop and silver wire attached, the patients invariably complained of pain, more or less acute, in different cases. Hence, in all cases in which the laceration occurred in a large hyper-plastic cervix, demanding the removal of a certain amount of parenchymatous cervical tissue, to prevent the sutures cutting out, and thus hinder accurate union, Dr. H. much preferred that the patient should be put under the influence of ether, in order to insure a painless operation. Dr. H. doubted whether it was advisable to inject a solution of cocaine, with the hypodermic needle, into the cervical parenchyma, as the tissues are too dense, in most cases, to allow of a rapid diffusion of the anæsthetic influence of cocaine. He had seen, however, in a recent number of the *British Medical Journal*, a report of the removal of hæmorrhoids in two cases, which were rendered painless by injecting 5 drops of a 10 per cent. solution of the hydrochlorate of cocaine, by means of a hypodermic syringe, into each side of the base of the

hæmorrhoid. After the operation a morphine suppository was inserted into the rectum, and, subsequently, not the slightest pain was experienced.

Dr. H. had now under care a married lady, aged 25 years, who suffered severely from dysmenorrhœa. She had an anteflexion of the vaginal portion of the cervix, with acute angular flexure at the posterior vaginal junction, and stenosis at the os internum. He determined to dilate the cervical canal with his dilatorium; but as the patient had grave organic trouble at both the aortic and mitral orifices, he thought that the administration even of ether was unadvisable. He therefore had applied, by means of a mop made of absorbent cotton, a 20 per cent. solution of the hydro-chlorate of cocaine, as thoroughly as possible, to the cervical canal twice, at intervals of five minutes, and keeping the cotton mop in the canal for 5 minutes each time. Then he carefully dilated the cervical canal, including the os internum, occupying 15 minutes in dilating to three-fourths of an inch. This lady had great fortitude and strength of character; and, while she did not utter a complaint, when the operation was over the shock was quite severe, and demanded a hypodermic of $\frac{1}{4}$ gr. or morphine. The pain induced by the operation was severe. The next day, in a similar case, Dr. H. operated in the same way and with the same precautions. The patient was extremely nervous, anxious and apprehensive, but had no heart trouble. She experienced little or no pain during the entire operation, although the dilatation was much greater, i. e., one and one-fourth inches. These two cases demonstrate that the amount of pain depends much upon the peculiarities of the patient; and it is well known that the normal sensibility of the female genitalia is a constantly varying factor in different persons.

Dr. B. B. Browne referred to his previous remarks in which he stated that he had injected 20 drops of a 4 per cent. solution into the uterine tissue, and there had been almost no suffering during the process of dilatation.

In one case of lacerated cervix he had painted the solution over the cervix, and had also injected it into both lips. In this case there was perfect freedom from pain, but it was impossible to say how much of this effect was due to the injected cocaine and how much to that applied upon the surface. He would recommend in cervix operations that it be used in both ways, on the surface and hypodermically.

Dr. W. P. Chunn had used cocaine once, in a bilateral laceration of

the cervix. He painted it over the cervix, then injected it into the anterior lip, and, after denuding that, injected into the posterior lip and finished the operation. The patient seemed to suffer little or no pain.

Dr. W. E. Moseley had had some experience in the use of cocaine. He had always used a 4 per cent. solution, and had always applied it by painting the surface to be operated upon freely from three to five times, at intervals of three minutes. He had done several cervix operations and found it to answer very well when there was but little cicatricial tissue to be removed from the angles. There was little or no sign of suffering while the surfaces were being denuded, in most cases when the needles were passed the patient showed signs of feeling decided pain, requiring reapplication of the cocaine. In one case of operation high up in the cervical canal the patient said she felt no pain throughout the operation, and that she would not have known when the sutures were introduced except for a remark that was made. She did feel the dragging upon the uterus when the needles were passed. Another patient said that the most suffering she had was when the shank of the scissors pinched a bit of the tissues about the vulva.

He had also, very reluctantly, and at the earnest solicitation of the patient done Dr. Emmet's new perineum operation under the same anæsthetic, but he would not be willing to do so again. Denudation was accomplished without any marked trouble, but the introduction and tightening of the sutures caused very decided suffering.

He greatly preferred full anæsthesia for either the cervix or perineum operation.

In no case had he been able to *demonstrate* that cocaine interfered with prompt union of the denuded surfaces, although he was inclined to think that it did to some slight extent.

Dr. B. B. Browne referred to a case of septicæmia, in his practice in which there was some nausea, vomiting and hiccough, in which he gave 10 drops of a 4 per cent. solution of cocaine. The symptoms were very promptly relieved, and the relief lasted for twelve hours, when he repeated the dose. He had given it also with good result in the nausea and vomiting in pregnancy.

Dr. H. P. C. Wilson said that any remarks he could make would be very much of a repetition of what had already been said, as his experience with cocaine had been much the same as that of the other gentlemen who had spoken.

He had used cocaine when operating in five cases of lacerated cervix, when the patients feared ether or chloroform. By thoroughly painting the surface with a 5 per cent. solution, and introducing it within the cervical, he could denude the parts without pain to the patient. Some of the sutures could also be passed without pain, but the deeper and last sutures are usually attended with suffering sufficient to require cessation of the operation and reapplication of the cocaine. The union of the parts after this agent was just as prompt and complete as without it.

But even when this operation could be done without pain under cocaine, if it was at all tedious, the patient was apt to become nervous and more or less restless, and move at a critical moment of cutting or passing a needle, and thus embarrass the surgeon; and hence he preferred the general and profound anæsthesia of ether or chloroform, to the local anæsthesia of cocaine.

He had never used this remedy hypodermically, but this method, in conjunction with its superficial use, would probably deaden the sensibility of the parts more completely.

He had heard of the nausea and vomiting of pregnancy being promptly checked by applying a solution of cocaine to the surface of the cervix uteri, and up the cervical canal, so as not to pass the internal os. The suggestion looked reasonable, and he would try it in the first case presented.

Dr. T. A. Ashby, in closing the discussion, remarked that there were only two or three points to which he wished to direct attention. In regard to the point raised by Dr. Howard, with reference to the different degrees of sensibility to pain in different women, he fully coincided with these views, and thought that this explanation satisfactorily accounted for the failure of cocaine to effect all cases alike. He had observed this fact, and was convinced that the anæsthetic properties of cocaine were not of equal extent and value in all cases.

In reply to the inquiry raised by Dr. Neale in regard to the hypodermic administration of cocaine, Dr. Ashby referred to the valuable experiments and observations of Corning, of New York, who was the first worker in this field to demonstrate the great value of cocaine injected subcutaneously. Dr. Corning has shown that where the tissues are constricted in such a manner as to prevent rapid absorption of the injected solution, profound local anæsthesia is the result. The literature of medicine is now filled with the recital of cases show-

ing the wide application of this method and its great value. The removal of necrosed bone, amputation of limbs, laparotomy, circumcision, closure of hare-lip, and similar procedures have been painlessly performed under cocaine injections, employed after the method inaugurated by Dr. Corning. Dr. Ashby thought that a practical difficulty would be met with in injecting cocaine into the cervix uteri and perineum on account of the inability of the operator to prevent rapid absorption of the solution, owing to the fact that the cervix uteri and perineal tissues could be constricted only with the greatest difficulty in a few exceptional cases. He believed that Dr. Corning's method was less applicable in female surgery than in surgical procedures elsewhere.

Dr. L. E. Neale thought the ecraseur carrying a catgut loop, shown by Dr. Erich at a previous meeting of the Society, would answer the purpose of constricting the cervix very well. After drawing the uterus down in the vagina, he saw no difficulty whatever in throwing the loop around and constricting the cervix at any desired height, the higher above the vaginal junction, of course, the more vaginal tissue included in the constriction. It was not at all necessary for the use of this instrument to have an elongated cervix.

Dr. B. B. Browne thought that when constriction was used together with application of cocaine, we must credit the constriction with a very considerable anæsthetic effect, and he believed the more thorough anæsthesia was due to this rather than any checking of the absorption of the cocaine into general circulation. He referred to a case in which a friend had operated for phymosis, the only anæsthesia used being constriction of the penis. In this case the patient suffered no pain.

SOLUBILITY OF MORPHINE IN LIME-WATER.—Doubtless many doctors who have given sulphate of morphine in solution in lime-water have not settled in their minds the chemical compatibility of the mixture. Some recent experiments in the assay of morphine by Wrampelmeiner & Meexert (*American Druggist*, November), show the mutual solubility of lime-water and morphine.

CORRESPONDENCE.

CASES OF TRIPLETS REACHING NINETEEN YEARS IN ONE SET AND TWO YEARS IN ANOTHER.

Messrs. Editors North Carolina Medical Journal:

In the NORTH CAROLINA MEDICAL JOURNAL for August, you publish Dr. Crump's paper on "Multiple Fœtation—Triplets," read before the North Carolina Medical Society, at New Bern, in which he reports a case, and in commenting on it says:

"I have been unable to find a single authentic case of triplets in which all of the children lived, and but one in which any of the children lived more than a few weeks."

Thinking it might, in connection with Dr. Crump's paper, interest the readers of the JOURNAL, as well as furnish Dr. C. some statistical matter, I beg leave to report the following cases:

Case 1.—P. McE., colored, in 1867 gave birth to triplets—all females. All three survived, and are now well-developed women. Two of them have given birth to one child each. The parents were 25–30 years old—both colored ("ginger-cake") and of ordinary size and vigor.

Case 2.—H. McL., colored, on July 17, 1882, gave birth to triplets—two males and one female. All survived and were well-developed—grew fast until March, 1884. (The mother was confined at this time and the children were neglected.) One male died of some acute disease, presumably the effects of exposure. The others still survive—strong, vigorous children.

I might add, in this connection, that this woman, on March 17, 1884, gave birth to twins—male and female. Again, on December 5, 1885, she gave birth to one—a male. As in Case 1, both parents are colored. Age when triplets were born—mother, 36; father, 45 or 50.

Taking into consideration the bad hygienic condition the average negro child of our State exists in—bad and insufficient food and clothing—these cases, which are no exception to the rule, suggest the idea that the vitality of triplets is not so low as Dr. C's paper would lead us to believe. It is true, he quotes "the books," and it may be that these two cases are only a coincidence, although they did happen in the same community.

Simpson mentions a case of quadruplets, in which all survived—one female and three males. The female subsequently gave birth to triplets.

Yours truly,
Gibson's Station, N. C.

N. M. McLEAN.

NOTES.

INTER-STATE NOTIFICATION IN INFECTIOUS AND CONTAGIOUS DISEASES.—The following resolutions, presented by the National Conference of State Boards of Health, were adopted by the American Public Health Association, at Toronto, October 8, 1886 :

WHEREAS, It is necessary for the protection and preservation of the public health that prompt information should be given of the existence of cholera, yellow fever and small-pox ; be it

1. *Resolved*, That it is the sense of the National Conference of the Boards of Health that it is the duty of each State, provincial and local board of health in any locality in which said diseases may at any time occur, to furnish immediately information of the existence of such disease to boards of health of neighboring and provincial States, and to the local board in such States as have no State board.

2. *Resolved*, That, upon rumor or report of the existence of pestilential disease, and positive definite information thereon not being obtainable from the proper health authorities, this Conference recommends that the health officials of one State shall be privileged and justified to go into another State for the purpose of investigating and establishing the truth or falsity of such reports.

3. *Resolved*, That, whenever practicable, the investigations made under the preceding section, shall be done with the coöperation of the State or local health authorities.

4. *Resolved*, That, any case which presents symptoms seriously suspicious of one of the aforementioned diseases, shall be treated as suspicious, and reported as provided for in cases announced as actual.

5. *Resolved*, That, in any case respecting which reputable and experienced physicians disagree as to whether the disease is or is not pestilential, it shall be reported as suspicious.

6. *Resolved*, That, any case respecting which efforts are made to conceal its existence, full history and true nature, shall be deemed suspicious and so acted upon.

7. *Resolved*, That, in accordance with the provisions of the foregoing resolutions, the boards of health of the United States and Canada, represented at this Conference, do pledge themselves to an interchange of information as herein provided.

IRVING A. WATSON,
Secretary American Public Health Association.

To HEGAR, of Freiburg, we are indebted for the new sign of great promise which bears his name. To Hegar's sign of pregnancy I had expected to devote the greater part of this paper. Owing, however, to the writings of Reinl, Compes and Grandin, which have been so largely quoted by the American medical journals during the last two or three months, I fear I shall be speaking

of something not new, but quite familiar to all. This sign consists of an unusual resiliance, compressibility, softness, bogginess, yielding and thinning of the lower uterine segment; that is, the section immediately above the insertion of the ligamenta sacro-uterina. This condition is not alone present when the remainder of the body, as is often the case, is firm and hard, but also prominent when this is soft and elastic. The shape assumed is fan-like, or that of a balloon, more than the usual pear-shape. It has also been termed an old-fashioned fat-bellied jug. This enlargement is especially marked antero-posteriorly. The change is most apparent at the middle portion of the lower segment and in the median line, the sides of the organ being much firmer and more resisting.

Compes makes the examination as follows: The thumb is introduced into the vagina until it reaches the cervix, and the index-finger into the rectum until it reaches beyond the ligamento sacro-uterina; the other hand is placed over the abdomen immediately over the symphysis and pressed down towards the finger in the rectum. The rectal finger explores the cervix and the lower uterine segment in all its parts, and lastly, the higher parts of the uterus. The examination is facilitated by pulling down the uterus with a volsella and evacuating the bladder and rectum. While this is undoubtedly a very thorough mode of examination, it is repulsive both to the patient and physician, as well as a difficult and hazardous procedure. It is certainly possible in a great majority of cases to make out all that is necessary with a finger in one of the cul-de-sac and the other hand externally. In urgent cases, where this does not satisfy the physician, it would be quite proper to make the examination as above described.

Compes has examined a number of women, found the sign present, then put them under an anæsthetic, and still found it present. He says the softened and enlarged uterine segment above the cervix has often been mistaken for a tumor, and that, in fact, laparotomy has been performed under this delusion.

There are two states which may simulate this condition, viz: distended bladder and the uterus distended with menstrual blood. A distended bladder can and should be evacuated. An imperforate hymen or vagina, or the history of the case, would soon dispel the other question. Hyperplasia would show increased density. Subinvolution increases the longitudinal as well as the transverse diameter. The obstructed circulation from an anteфлекed uterus does not impart that feeling of resiliency and compressibility. In marked retroversion it is more difficult to palpate the corpus uteri, and the sign may fail. Here also it is proper to examine per rectum.

Dr. Reinl, formerly assistant to Hegar, has reported six cases; by letter he tells of extended experience as follows: "Among twenty-two cases I missed this sign but twice, and found it earliest in the fifth week of pregnancy."

Dr. Compes, present assistant to Hegar, reports eight cases.

Dr. E. H. Grandin, of New York, has reported twelve cases. In

a letter to me since this report, he says: "Since the writing of my paper I have had six additional cases, all corroborated, and one of these a case of retroversion. * * * Personally, therefore, I record myself as being able to make the diagnosis prior to the eighth week by Hegar's sign alone."

My experience has been so recent that many of the cases have not had time to prove themselves. I will mention but two, one in which the sign was absent, one in which it was present.

Case 1.—Mrs. B., a widow, aged 37, came to me March 20, 1886. She acknowledged the opportunity and feared herself pregnant, not having seen her menses for twelve weeks. I examined her for Hegar's sign, but failed to find it. I told her I did not think she was pregnant. Gave her tr. ferri chloridi, and asked her to return in a few days. She returned three times, each time expressing great fears of pregnancy. Each time I examined her, failed to find Hegar's sign, assured her she was not pregnant, and continued the iron. April 1st the menses reappeared, and were normal in amount and duration.

Case 2.—Mrs. R., a young married woman, aged 20, a delicate blonde, the mother of one child aged 2 years. She had been absent from her husband four months visiting her parents at Washington, D. C. She last had her menses January 15, continuing five days, normal in amount and conduct. She returned to Cincinnati and her husband February 9. March 5, Dr. Ransohoff was called, and finding the case to be gynecological, referred her to me. She had not had a return of her menses since the middle of January. The nature of her case required a digital and specular examination once, twice or thrice weekly. March 10 she was slightly sick at the stomach. This had not occurred before, and did not occur, nor any other sign indicating pregnancy, besides the cessation of the menses, before the sixth week after her return to her husband. During the sixth week I made three careful vaginal examinations, and at each one was sure I found Hegar's sign present. I assured the patient that I was quite confirmed in the belief that I had frequently expressed to her, viz: that she was pregnant. On March 30 she complained of not feeling well. On the morning of March 31, the forty-eighth day after her return, she passed a large quantity of blood and a membrane, which she saved and showed me. This proved to be the major portion of an ovum, the remainder of which was found within the vagina.

Dr. Palmer, of Cincinnati, informs me that he regards Hegar's sign as possessing the greatest value in diagnosing early pregnancy, especially taken in conjunction with the change of position, at first sagging, then increasing anteversion at the end of the second and during the third month, both incident, of course, of the pregnancy.

As the shape of the uterus, enlarged by pregnancy, is one peculiar to that state, and is an enlargement, largely confined to the body of the organ, it can thus be differentiated from the enlarge-

ments due to sub-involution, chronic metritis with hyperplasia or hypertrophy, or fibroid infiltration. The enlarged uterine body from pregnancy is likewise less dense than from hyperplasia or an intra-mural fibroid, and, to touch, presents a much greater degree of uterine pulsation.

In all these named morbid conditions almost surely there will be a menorrhagia in some form, or a metrorrhagia, or both. It is extremely rare for a fibroid infiltration to involve both anterior or posterior walls alike; the enlargement is symmetrical.

The peculiar enlargement of the uterus described by Hegar, but noticed often by many before his description appeared, is best detected in the normal anteverted position of the uterus. Retroversion prior to pregnancy, as malposition is usually increased by pregnancy in the first month, presents conditions rendering it more difficult of recognition.

There remains to us, then, to again lament our inability, in many cases, to make a positive diagnosis of early pregnancy, to mourn the fallibility of the old and many of the new symptoms, to especially recommend the sign of Hegar, which until now has proven itself impregnable, and to plead for investigators in a field which should not be "barren or unfruitful."—*Journal of the American Medical Association.*

READING NOTICES.

SUBSTITUTION.—Does the profession realize how much injury is done to the physicians and their patients by the *substitution* of spurious, or the so-called "just as good" preparations *in place of* goods of standard reputation?

The following letter from Dr. Springer is a case in point:

Respectfully,

BATTLE & Co., Chemist's Corporation.

VAN BUREN, OHIO, September 10, 1886.

Messrs. Battle & Co., St. Louis, Mo.:—GENTLEMEN:—In the case of "Insomnia," which I reported to you in May last, and wherein it required seven-drachm doses (hourly 1 drachm) to produce sleep by Bromidia bought at pharmacy in Findlay—it required but 1 drachm, repeated in *one* hour, to produce a good night's rest, of the sample bottle you sent me. I also use the Bromidia (Battle & Co.) with the best results in "cholera-infantum" and in "hysteria." *Am satisfied that the article bought at Findlay was "Spurious."*

GEO. SPRINGER, M.D.

—:O:—

COEGENITAL HEREDITARY ATONIC DYSPEPSIA.—During a practice of twenty years, I have prescribed Lactopeptine to patients of

all ages, and have never been disappointed in its action when indicated. But I desire to speak in particular of its action in a case of congenital hereditary atonic dyspepsia: in an infant, to whom I began to administer this remedy on the third day after birth. Mrs. H. L. S., Langside, Miss., was delivered of a male child in whom there was manifested well-marked symptoms of atonic dyspepsia. The mother had been a victim of dyspepsia from girlhood, and had inherited the malady from her mother. The infant was put to the breast a few hours after birth, and nursed readily; but almost immediately rejected the milk. Repeated trials all resulted in vomiting, followed by exhaustion. Other articles of food were tried, including cow's milk, etc., without improvement. The child was in great danger of starvation. On the third day I began the administration of Lactopeptine. The effect was immediate and almost miraculous. I ordered one-sixteenth of the adult dose to be dissolved in about two ounces of breast milk (drawn from a robust, healthy wet-nurse), and administered every two and a half hours. There was no more rejection of milk—except the usual vomiting of curdled milk, to relieve the crowded state of the stomach, which occurred after the first ten days. Condensed milk, cow's milk (properly diluted and sweetened), Mellin's food, boiled bread (pap) were substituted for breast-milk, but always with Lactopeptine. A steady improvement was manifest from the beginning, and kept up during the first dentition, which process was gone through with in a most satisfactory manner. No untoward diarrhœa or intestinal disturbance characterized this period, and at ten months, the child was virtually cured of its dyspepsia, and could eat and digest ordinary food such as children of that age may do in good health. The parent's of the child believe firmly (as I do) that Lactopeptine saved their infant. In cholera-infantum, in diarrhœa, and in all of the disturbances of the alimentary canal, during dentition and early infant life, I find Lactopeptine an ever-effective and reliable remedy. In adult dyspepsia, all are now familiar with its beneficial effects; but I should be glad if the profession would be induced to try it in the vomitings, diarrhœas and dyspepsias of infancy. I recall several babies whose lives I believe I could have saved had I known, ten years ago, what I do now of the ready adaptability of Lactopeptine to infants ailments.—R. WALKER BEERS, M.D., in *the Medical Brief*.

Angola, La.



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NORTH CAROLINA MEDICAL JOURNAL.

THOMAS F. WOOD, M. D.,
GEO. GILLET T THOMAS, M. D., } Editors.

Number 6. Wilmington, December, 1886. Vol. 18.

ORIGINAL COMMUNICATIONS.

PORTER'S ANTERIOR EXTENSION SPLINT—A MODIFICATION OF SMITH'S ANTERIOR SPLINT.

By B. M. CROMWELL, M.D., Eckhart Mines, Md.

This modification of the well-known "Anterior Splint" of Prof. N. R. Smith, of Baltimore, which accomplishes all that the Smith splint is capable of, possesses this additional great advantage, that by it powerful extension can be obtained at a minimum of discomfort to the patient. It was introduced to the profession by Dr. G. E. Porter, of Lonaconing, Md., in the year 1876, through the columns of the *Medical and Surgical Reporter*, of Philadelphia. It has been before the profession now ten years, and, judging from the very cursory notice given it in "Hamilton on Fractures and Dislocations," and in such other medical literature that has come to my notice, I am convinced that this valuable appliance for the treatment of fractures of the lower extremity, is either generally unknown or is but illy understood; otherwise it would certainly be in more general use. The propriety of calling more special atten-

tion to Porter's splint suggested itself to me, because, judging from my own experience, I am disposed to think that those surgeons to whose notice this modification has been brought, have, after a hasty and insufficient examination of it, cast it aside as a mere fanciful variation of the Smith splint, from which no material advantage was to be obtained. For several years after the splint was brought to my notice, I continued to put up fractures of the thigh and leg by the methods in vogue, because I did not take the trouble to understand the principle involved in the application of this one. Not until I was induced to apply it under the supervision of one long conversant with it, did I find how valuable the appliance was. Its use has superseded in my practice, as it has in the practice of all those who thoroughly understand it, all other methods for treating fractures of the thigh; and if the fracture is oblique or compound or attended with contusion and crushing of the soft parts of the leg also.

Believing that any hastily formed opinion as to its merits is likely to be erroneous, and that by it medical men are denying themselves the use of the most perfect and satisfactory apparatus for the treatment of fractures of the thigh that has yet been devised, I have been careful, in writing this article, to spare no details that are requisite to make its *modus operandi* easily understood and its merits appreciated. Accompanying the article is an illustration of the splint doing duty *in situ*. It is taken from a photograph kindly furnished me by Dr. Porter from a patient of his that was under treatment for fractured thigh, and which he was kind enough to invite me to see with him. A study of the illustration will make clear any statement in the article that may be obscure. To avoid frequent references to the description of Smith's splint, and to make the description of Porter's as explicit as possible, I will describe the mode of constructing, as well as applying the splint, with such suggestions as seem requisite to insure success. In doing so I shall draw freely from Dr. Porter's description on introducing his splint to the profession, without any more explicit acknowledgment.

It was claimed by Prof. N. R. Smith for his splint that, by attaching the suspending cord to the ceiling at a point below the seat of fracture, extension through it could be obtained. This is undoubtedly an error, for if the splint is not secured to the pelvis

by a band, the effect of such obliquity of the cord will be to pull the splint and dressing off of the leg altogether, and if the splint is secured to the pelvis the traction of the cord is exerted against the pelvis, and not against the leg below the seat of fracture. This claim of Prof. Smith is now, I believe, universally disallowed, but that extension cannot be made with his splint in this or any other way, is easy of demonstration to any one who will try it.

Dr. Porter's modification consists in this: the Smith anterior splint is unchanged and unmodified in its entirety, *except* that the side-wires are not united at the instep, but are prolonged and arched over the foot; they are then brought down parallel with the plantar surface of the foot, and extending an inch or more below the heel, are united as in the splint of Smith. (This can be seen and understood by a glance at the illustration.) To the descending arms of this pedal arch are attached adhesive strips (one to each arm), previously applied to the outer and inner aspects of the leg, beginning at the seat of fracture; extension is made by the spring of the wire-arch, made effective by obliquing the suspending cord, as will be more fully explained farther on.

The splint is made of stout No. 5 wire of the shops, for adults; for children, smaller sizes are more suitable. From its pelvic extremity to the bend at the instep (the beginning of the arch), the side-wires are two inches apart; from this point they gradually widen as they arch over the toes and descend parallel with the plantar surface, until at their termination, where they are joined together, they are five inches apart. The side-wires are united at intervals of six inches by smaller cross-wires, which are slightly curved upwards and twisted on themselves, so as to form eyelets for the insertion of the hooks of the suspending cords. The splint is bent at the groin to adjust it to the abdomen of the patient, and very slightly at the instep; but the arch should spring from the instep, abruptly. (See illustration.) The splint should also be slightly bent at the knee to accommodate the patella, and to add strength to its centre, but *not* to give a semi-flexed position to the leg, which should be kept straight. The splint should be of sufficient length to reach to the anterior superior spine of the ilium, and the descending arms of the arch should reach a little below the heel of the patient to accommodate the adhesive strips. The arch should be symmetrical, and the side-wires forming it should be five

inches apart at the top of the arch and five inches at the heel, so that from the top of the arch they will descend parallel to each other, as well as parallel to the plantar surface of the foot.

The apparatus for suspension is the same as that used by Prof. Smith, except that Dr. Porter uses two leg-cords, one long and one short, which gives better support to the limb.

Instead of the roller, Dr. Porter uses "*the many-tailed bandage*" in two pieces, one piece long enough to reach from the knee to a little beyond the plantar border of the heel; the other from the knee to the perineum. The tails, two and a half inches wide, should be well cut down, leaving a narrow isthmus along the posterior median line of the limb, and long enough to embrace the limb and pin over the side-wires, with three or four inches to spare. *These many-tailed pieces must always be made of stout unstretching drilling.* This is an essential point. I have tested it repeatedly."

The adhesive strips for an adult should be not less than three inches wide, and should be applied to the outer and inner aspects of the limb—the hair being first shaved off—beginning at the seat of fracture and extending beyond the foot far enough to lap over the descending side-wires of the arch. The strips should be secured to the limb from the maleoli upwards, by a well-adjusted roller bandage.

The pulley must be secured into a joist in the ceiling at a point that will admit of free motion of the bed, and at a point *below* the seat of fracture. A hand-rest should also be securely attached above the patient's head, at arm's-length above him, by means of which he can shift his position at will.

Applying the Splint.—The broken limb, after proper adjustment, is placed upon pillows, on which the many-tailed pieces have been arranged. The limb being elevated its whole length, one pillow is placed under the thigh and the other under the leg, so that the many-tailed strips will come together at the flexure of the knee. The splint is held by an assistant over the anterior aspect of the limb, the arch being over the foot and the other end over the groin. "From the knee upwards the splint should be not less than two inches above the limb. The adhesive strips are pinned over the plantar side-wires in a line with the axis of the limb. Several tails of the bandage, at suitable supporting points, should be pinned over the side-wires. One short cord is hooked into the cross-wires at the groin and ankle, the other to the cross-wires above and below the knee;" these short cords

having been previously passed through a ring attached to the end of the elevating cord. The elevating cord is then drawn upon until the limb is clear of the pillows, which are then removed, and the other tails of the bandage are adjusted to the limb and pinned to the side-wires. "If this duty is well performed the bandage applies itself to the general contour of the broken member with a neatness and snugness simply perfect. A doubled strip of muslin must be passed round the pelvis and pinned over the side-wires above the bend at the groin. By pushing the bed head-ways we get the requisite extension. To prevent the patient slipping down in bed, its foot should be elevated from three to six inches."

The tails supporting the seat of fracture must be firmly drawn up; by doing so we raise the fragments into place and restore the normal curve of the bone. If proper attention is given to this point the limb should never unite with a "backward curvature or angle." * * * "When the many-tailed bandage is employed in place of the roller the occurrence of this deformity should probably be attributed to the surgeon rather than to the apparatus." In fractures at or within the upper third of the femur there is a strong tendency of the muscles of the gluteal region to pull the upper short fragment outwards and somewhat downwards, owing to the fact that the powerful glutei muscles are not antagonized by those inserted below the seat of fracture. The tendency to deformity arising from this is difficult to counteract in the treatment of thigh fractures by weights suspended from the foot, and the patient is apt to recover with a decided "bow" to thigh. This can be obviated by the splint under consideration by diverting the limb, after it is swung up, outwards, so that the glutei muscles are relaxed. I doubt if this tendency can be completely overcome, as Dr. Porter says, by "drawing up the tails of the bandage" at the seat of fracture; but by relaxing the glutei in conjunction with this precaution no difficulty ought to be experienced.

The Bed.—Before concluding this description of the apparatus and the conditions essential to the successful treatment of fractures by this splint, a word about the bed on which the patient is placed is necessary. Dr. Porter very truthfully says: "If we attempt to treat a fracture of the thigh with this or any other apparatus without a suitable bed, both patient and surgeon stand a fair chance of coming to grief." The bedstead should be not less than three feet six inches wide, that the patient may have some latitude of movement with his

hands and arms; it should have a solid bottom, to prevent the mattress falling into ridges; it should be without a foot-board, and the mattress should stand higher than the frame. It should be strongly put together with nails or screws, to prevent the possibility of its coming apart, and it should be without rollers.

It is not claimed that this splint produces extension when the leg is at rest on the bed, or if it is suspended vertically. In such a case the action of the adhesive strips on the wire-arch would be to push the splint up on the abdomen of the patient. It is of the utmost importance that this should be well understood, for upon a correct appreciation of the principle involved depends the successful application of the splint. With the leg at rest or suspended vertically, the splint can exert no extending force upon the lower fragment of the fracture, unless a counter-extension perineal band is passed round the limb at the groin and fastened to the cross-wire at the groin on either side. But if the cord is suspended *below the seat of fracture*, the traction necessary to elevate the limb *pulls the splint downwards against the adhesive strips*, which in their turn *pull the lower fragment of the fracture from the upper*, counter-extension being supplied by the weight of the body—and so extension is made. The amount of extension obtained depends upon, first, the strength of the arch spring; second, the degree of obliquity given to the cord; and third, to the weight of the counter-extending mass—the body.

To sum up the advantages obtained by the use of this splint in the treatment of suitable fractures, I will point out that the splint is simple and easily constructed. It may be made by the surgeon himself at any tin-shop. It is durable, and does not readily get out of order; is of easy and quick application, and affords more ease and comfort to the patient, as well as more freedom of movement than any other contrivance. It facilitates the use of the bed-pan, and the arch over the foot takes the weight of the bed-clothes from the foot. All bandaging is dispensed with, which is a matter of very great importance when it is desirable to inspect frequently the condition of the soft parts surrounding a fracture. Even the roller that is applied over the adhesive strips may be dispensed with if occasion requires, and the limb becomes open to inspection at all points, by simply unpinning one or more of the strips that make up the many-tailed bandage.

As regards results obtained from the use of this splint, Dr. Porter's

experience ought to be conclusive. In his article in the *Medical and Surgical Reporter*, bringing the splint before the profession, he gives the histories and results in six cases treated by himself during the years 1874-'75. In three of these cases he obtained no shortening—in two, one-half inch, and in one, one-fourth of an inch.

Quite recently I have received from him the histories of six other cases of more recent date. Two of these were caused by muscular spasms in epileptics--fracturing the thigh. To one of these he applied the splint, adopting special precautions to protect the limb on a recurrence of the seizures, of which she had twenty-seven (27) during treatment. He reports the case as recovering "without deformity," but says nothing of shortening. The other epileptic's fractured thigh was put up in starch bandages, but the result was not so good, as she is reported as recovering with her thigh a "good deal curved." *Case third*—one of multiple fracture, involving two fractures of the shaft of the left femur, one of the left tibia and fibula near the ankle, also fracture of the right tibia extending into the ankle-joint, and of the fibula four inches above the maleolus. These several fractures were attended with two lacerated wounds, one of six and one of two inches in length, in the ham. The "Anterior Extension Splint" was applied to both legs; was on his crutches at the end of ten weeks with one-half inch shortening. *Case fourth*—fracture of right femur in its middle, with compound comminuted fracture of left foot—foot being twisted outwards. Was suspended in the "Anterior Suspension Splint"; was on his crutches in seven weeks with no bad results as to foot. No shortening when measured at the end of seven weeks. *Case fifth*—multiple compound comminuted fracture of right femur; one fracture close below the trochanter, another (oblique) about two or three inches above the condyles, with some comminution of the shaft between the two fractures, and a sharp point of bone piercing the skin. Was put up in the "Anterior Extension Splint," which was kept on forty-seven days; was required to keep his bed two weeks longer. Patient always claimed that the broken limb was the longest; on measurement at the end of three months the limbs were found to be of the same length. *Case sixth*—multiple fracture; left femur fractured at junction of upper and middle and at junction of lower and middle thirds; tibia and fibula of same limb fractured at lower end, involving ankle-joint; right tibia fractured at upper end, and internal lateral ligament torn across. Both limbs put up in the

"Anterior Extension Splint." Right leg taken out of splint at the end of seven weeks, the left at the end of nine weeks. Shortening of left leg three-fourths of an inch. *Case seventh*—multiple fracture of right femur and fracture of pubic bone on same side. "Anterior Extension Splint." Shortening five-eighths of an inch.

It will be seen that all of these cases were of unusual interest, either from the nature and extent of the injuries involved, or, as in the two cases caused by muscular spasm in epileptics, the curious way the injuries were brought about. The results obtained in each case speak well for the efficiency of the apparatus, and bespeak for the "Anterior Extension Splint" of Dr. Porter's ingenious contriving, more general recognition by the profession than it has yet received.

SYMINGTON (Dr. J.)—"The mastoid portion of the temporal bone."—*Edinburgh Medical Journal*, October, 1886.—The writer of this article draws attention to the anatomy of the mastoid with reference to the operative treatment of inflammations of its interior. The mastoid is not one of the original elements, the fusion of which forms the adult temporal bone. In the infant the mastoid contains a single air cell communicating by a large opening with the attic of the tympanum. This antrum mastoideum has a thin roof separating it from the cranial cavity, but approaches nearer the outer surface of the skull than does the tympanum. It is not mentioned by English writers on anatomy, although of much importance to aural surgeons. Dr. Symington concludes, from the examination of infants and of children between four and twelve years of age, that the air cavity is of much the same size in each. Should suppuration occur, the chances of pus escaping externally would be greater in infants than in children, as the external layer of the mastoid thickens with age. In adults, the amount of air space and of mucous surface is greater than in children, and the risks of inflammation attacking the lateral sinuses are increased in consequence of the layer of bone between the anterior and lateral sinuses becoming converted into air-cells. It is at puberty that the air spaces of the mastoid are developed by the absorption of the fine cancellous tissue.—*Medical Chronicle*.

SELECTED PAPERS.

SOME DISORDERS OF ADOLESCENCE, ESPECIALLY IN GIRLS.

By JOHN M. KEATING, M.D., of Philadelphia.

There is a large amount of literature on this subject, but it is mostly confined to monographs or articles appearing in popular magazines. These do undoubtedly a great deal of good, but at the same time it seems to me that there is a medical side of the question which is equally important.

We all recognize the very great importance of impressing upon mothers the value of all that tends toward muscular development in growing girls. They should be symmetrically developed, should have full chests, straight backs and strong limbs. We should also urge the importance of clothing of light weight and loose fitting, the principal strain being on the shoulders, not on the waist and hips, and also the evil results of cramped, stooped positions in the school-room, eye strain and bad ventilation. We all urge these matters daily, and we all know but little attention is paid to them. But there are certain forms of various disorders which occur about the time of the second dentition, which deserve more than a passing notice. These are manifested either as a chorea, nervous excitement, such as night terrors and various mental disturbances misnamed hysteria, gastro-intestinal disorders and evidences of mal-nutrition. The child will probably become languid, suffer with frontal headache, become peculiar in her disposition and show fits of temper, shun society of other children, lose her appetite, become despondent, and possibly develop a local twitching of some of the facial muscles. It is customary to say that this is all reflex, is possibly the warning that the system is undergoing some change preparatory to the menstrual functions—that it is in fact a true hysteria. This may or may not be the case. My own impression is that it is often due to the anæmia brought about by rapid growth and development, with faulty assimilation and deficient oxygenation. In my experience such cases present two types, the one essentially nervous, just described, the other the so-called strumous or lymphatic, in whom the want of proper assimilation is shown by a large amount of stored fat, and the anæmia by excessive pallor.

In the first case, the mother will tell you at once that her child cannot take iron, that she has frequent nose-bleeds, and that she feels confident that if iron could be given it would be of great service. The nervous system seems to run riot, but this very excitement in itself is an evidence of the demand on the part of nature for a blood supply which is nutritious and well oxygenated. All the exercise in the world, all the most nutritious and sustaining of foods, will have no effect until the digestive organs are made to perform their normal functions. If you examine the tongue you will find it coated, the breath is heavy, the bowels are sluggish, the appetite is perverted, the child craves extraordinary articles of food, especially acids and sweets. She has a disgust for her regular meals. There is flatulence, cardiac palpitations, asthma after exertion. The urine is either scanty and high-colored, or very copious and of low specific gravity. If the menses have been established they are scanty, colorless and irregular, or there is a leucorrhœa. In these cases the recommendation of popular writers for gymnastics, friction, mild diet, etc., are admirable after the digestive organs have been cleared of their accumulation of ashes, and the normal functions whipped into activity. For an infant I have the greatest confidence in small doses of calomel, with soda bicarb. and ipecac, frequently repeated; but for the cases we now speak of, I prefer much the following:

R. Acid nitro-muriat. dil.,	℥ xl.
Succus. Tarax.,	℥ lxxx.
Vin. pepsini,	q. s. ad. ̄ j.

Sig.—Teaspoonful in water after meals three times daily, with a half teaspoonful of the fluid extract cascara sagrada every night until the bowels become regular.

After taking these for a few days, if the tongue has become clean, the complexion clearer, the patient can be placed on the following, instead:

R. Hydrarg. chl. corros.,	gr. ̄.
Liq. arsenici chlor.,	℥ xij.
Tinct. ferri chlor.,	3 j.
Syr. limonis,	3 j.
Aque,	q. s. ad. f ̄ vj.

Sig.—Tablespoonful after meals, and the laxative continued, if necessary, at night.

As far as the general treatment is concerned, the little patient should be sponged every morning with tepid water, she should stand in a tub, and have a pitcher of it poured down her spine from the nape of her neck, and then be thoroughly rubbed with a soft Turkish towel into a glow. The breakfast should consist of milk (warm), or cocoa, a soft-boiled egg, or rare pieces of steak or chop, either oatmeal, cracked wheat, grits, or Indian meal, alternating; bread and butter, with hot cakes. For dinner, soup, rare meat, fresh vegetables, very little water. For supper, stewed fruits, bread and butter, warm milk or cocoa, with tea, not coffee. She should retire early, and not be permitted to read at night. The supply of oxygen should come from out-door exercise, not an over-indulgence in walks or games that fatigue; let the school hours be limited to the early part of the day, and avoid that abomination of preparing lessons in the afternoon or evening for next day's recitations.

In about a week's time the girl will be able to bear the iron alone, and the tincture of the chloride can be given in ten or fifteen drop doses for sometime, or a chalybeate water can be given with arsenic. The digestive organs will now also tolerate milk in large quantities, provided it is of medium richness, is fresh, and is given warm.

But this is not all. There are very many cases of a highly nervous type, which, despite the most careful treatment, will not improve at home. The constant association with parents of like temperament, however solicitous they may be in carrying out instructions, is of itself a cause of nervous irritation.

It may be necessary to send such children from home, either to some relative, living possibly in the country or some distant city, or perhaps to some suburban or country boarding-school, where a thorough change of air and scene, the association with girls of a different temperament, will work wonders.

For the strumous type the same preparatory treatment may be instituted, and for such I would not hesitate to push the iron, phosphates, cod-liver oil as soon as possible. Change of air to the seashore is advisable. There is little trouble in the home treatment on these latter cases; there is rarely a conflict of authority in such families.

Although I have intimated that the ovaries have little to do with the production of these conditions, I feel satisfied that the weak-

ness, constipation, faulty clothing, eye strain, or dental pressure, will eventually tend to the production of uterine derangements—*anæmia* being the cause, due to deficient assimilation, from digestive disturbances, want of fresh air and healthful exercise, reflex irritation, and afterwards uterine disorders follow—*post hoc* instead of *propter hoc*.—*Medical and Surgical Reporter*.

SOME POINTS IN BRAIN SURGERY.

At the recent annual meeting of the British Medical Association Mr. Victor Horsley read a very interesting and practical paper on "Brain Surgery," in which he handled the subject by describing in detail the treatment of an imaginary case, and illustrated his remarks by photographs and specimens from patients exhibited, and from lower animals which had been made the subjects of experiments. Even in the best courses on operative surgery but little or nothing is done in the way of making the student familiar with operations on the brain, and it will therefore be of interest to follow closely, in this place, the matter of Mr. Horsley's paper.

On the day before the operation the head of the patient is shaved and washed with soft soap, and then ether; after which the position of the lesion is ascertained by careful measurement, and the place marked on the scalp. After this the head is covered with lint, soaked in a 1 to 20 solution of carbolic acid, oil-silk and cotton-wool; by which it is thoroughly carbolized for at least twelve hours before the operation. The usual purgative is then administered, on the evening previous to, and an anema on the morning of, the operation. In anæsthetizing the patient Mr. Horsley advises the use of a quarter of a grain of morphia, hypodermatically, and then chloroform. (It should be remembered that chloroform is more used in England than in this country.) The morphia allows a prolonged operation with a smaller quantity of the anæsthetic; and, as ascertained by Prof. Schäfer and Mr. Horsley, it causes well-marked contraction of the arterioles of the central nervous system; so that an incision into the brain is accompanied by comparatively little oozing if the patient be under its influence. The author

remarks that he has not used ether because he feared cerebral excitement from its use, while chloroform causes cerebral depression; but he states that in case of heart complications ether would be used. He thinks that in case of considerable heart trouble cocaine might be used as the anæsthetic; and if so, a very strong solution should be used when the dura mater is reached, as this membrane is very sensitive. As asepsis is the one cardinal point on which success of brain surgery depends, any solution applied to the dura must of course be thoroughly aseptic. Mr. Horsley thinks that in treating the wound the strictest Listerian precautions should be used; the spray, 1 to 20 carbolic solution, and for the first few days at least dressings of carbolic gauze. Sublimated gauze, the skin being protected by carbolic gauze, may be more serviceable; but good carbolic gauze is elastic enough.

He condemns the usually advised cruciform incision as inconvenient, for it is necessary to hold back four flaps; a semilunar flap simply has to be thrown back, and is not again in the way. It is important: 1. To carry the incision vertically to the bone and to raise with the flaps all parts superficial to the periosteum. 2. To make a shallow curve, so as to avoid cutting collateral vessels. 3. The incision must be so drawn as not to divide the main arterial trunks supplying that portion of the scalp (which can be easily done so as not to interfere with the first twenty-four hours' drainage of the wound, even if the flap be turned downwards; since, as the patient lies in the supine position, the discharge can always escape from the posterior border). The periosteum should be reflected by a crucial incision from an area corresponding to the first trephine hole, and subsequently as more bone is cut away. In removing the bone "one of the safest and most rapid plans is to make a couple of trephine holes at the opposite extremities of the area to be removed, then to cut half the sides of such an area with a Hey's saw, and finally to complete the division with a powerful bone-forceps. Assuming that the dura mater has been, by means of the trephine-holes, separated as far as possible from the under surface of the bone to be removed, I should have premised that, as no doubt will usually be the case where exploration has to be made, the opening of the skull will have been commenced by the removal of a large disc with the trephine." He prefers a trephine of two inches in diameter. When it is possible to preserve the dura mater

intact the removed portions of bone should be kept in aseptic sponges, and placed between the skin and dura mater at the end of the operation, they having been previously divided into small fragments in the manner indicated by McEwen. "The dura mater should be incised round four-fifths of the circumference of the area exposed at $\frac{1}{8}$ inch distance from the edge of the bone, so as to render it possible to stitch the edges together afterwards. The dura mater is best opened first by incision with the scalpel, and then by blunt-pointed curved scissors, great care being taken not to wound the meninges beneath. The main branches of the middle meningeal artery are best secured by a ligature passed through the dura mater just outside its cut edge, and knotted before the vessel is divided.

We now come to the treatment of the brain. The first practical point to notice after division of the dura, says Mr. Horsley, is whether the brain immediately bulges into the trephine hole or not. "I am inclined to believe that the fact of the brain bulging very prominently into the wound indicates pathological intra-cranial tension—a piece of evidence which, if true, is obviously of the highest importance, since, other things being equal, it will indicate the existence of a tumor. I have never, in my experiments on healthy animals, observed such immediate bulging, and, conversely, it has never been absent in the three cases of tumor. Should no abnormality be found in the membranes, the color of the brain should be carefully noted. Of course, in order to judge as to the color one should have experience, and this may be gained by experiments on the lower animals." "The existence of a slight yellowish tinge, or, possibly, the opposite condition, namely, lividity, will indicate the existence of a tumor beneath the cortex in the corona radiata. The condition of the vessels and the perivascular lymphatics must next be investigated, and particular notice taken of any yellowish white patches in the walls of the latter, indicating old mischief. An accurate knowledge of the arterial and venous supply of the brain is highly necessary, since, not only for this purpose, but also for the more difficult one of removing portions of the brain, is it of great service to see at once what portions of the brain are actually, or likely to be, deprived of their blood-supply. Alterations in the density of the brain must next be observed; but it must be remembered that cerebral tumors situated beneath the

cortex are scarcely to be detected, save by exploratory incision." Now comes the consideration of the removal of a tumor or a portion of brain substance.

Probably the greatest dread of interfering surgically with the brain is the fear of hæmorrhage, which, says Mr. Horsley, is as unreasonable as the taking of aseptic precautions is indispensable. As in the kidney, the arterioles of the brain are directed perpendicularly to surface; and we know that a slight incision of the kidney is followed by free hæmorrhage, which often causes no little alarm, but which ceases if the wound be plugged for a few minutes with a piece of sponge. "We ought to treat the brain in the same way, and thus, while being conservative as far as possible, we should obtain in addition a cleanly cut surface most favorable to rapid union." It will be remembered that much of this hæmorrhage may be avoided by the use of morphine. It seems scarcely necessary to say that every main vessel should be left intact, in view of the terminal character of the cerebral vessels. Owing to the fact that the vessels run in the pia mater they can be raised from the brain, and especially from the sulci, while a portion of the subjacent brain is removed, and without serious damage to the vessel-wall. In incising the cortex the cut must be made exactly vertical to the surface, and directed into the corona radiata, when necessary, in such a manner as to avoid damage to fibres coming from the portions of the cortex, and surrounding the seat of the operation; which is easily done by remembering the paths taken from the cortex to the internal capsule. With a knowledge of cerebral localization it will be possible to operate without destroying all portions of any particular centre, unless total paralysis of a part be preferable to leaving diseased tissue which would keep up the symptoms for which the operation is made. After the removal of a portion of the brain the floor of the wound bulges almost to a level with the surrounding cortex, and there is a tendency to hernia cerebri. Hence the value of the large semilunar flap becomes more apparent, as it more readily unites by first intention, and it is strong enough to resist the upward push of the brain; which is not the case with the cruciform incision.

In regard to closure of the wound, Mr. Horsley says: "I suppose that at the present time I shall be accused of insanity if I propose to lay down the dictum that, as a rule, wound cavities

produced by removal of portions of the brain are not to be drained for more than twenty-four hours ; but it is, nevertheless, my intention to make such a proposition. Let us consider for a moment the conditions of the problem. We wish to obtain union by first intention—that is, firm union in four or five days. We also wish to secure pressure on the brain, which, as just mentioned, is tending to extrude ; and, finally, we wish to arrange matters so that, when the wound is finally healed, the flap of skin may be separated from the brain beneath by a cushion of soft normal (that is, non-inflammatory) connective tissue. All these latter conditions are to be obtained by allowing a certain amount of tension of wound-exudation within the cavity. During the first twenty-four hours there is a steady oozing of blood and serous fluid from the cut surfaces. This is best removed ; and therefore I put in a drainage-tube at the most dependent point of incision (that is, as the patient lies in bed). This tube is to be taken out the next day, and the wound carefully dressed, firm but gentle pressure being made over the centre of the flap. If the wound exudation that subsequently collects in the cavity accumulates to any appreciable extent, on the third day the patient may complain of some pain and throbbing in the wound, which, when exposed, will be found to be distended in the centre, the periphery being firmly united. Now comes a most difficult point in the treatment, namely, the question whether this tendency is to be allowed to proceed, or whether it should be released. By adopting the latter measure the advantages of the pressure will be lost ; so that the point in question is one requiring special attention. The practical feature upon which it is to be decided is the very simple one whether the primary union is in danger of being broken down by the pressure or not. If the former is the case the pressure can easily be diminished by gently opening up the track of the drainage-tube with a probe, and liberating some of the exudation. The value of the tension in reducing the tendency to hernial protrusion is obvious ; but I wish to draw attention to the fact that, until it is finally absorbed, the heightened pressure serves two purposes. In the first place, it compels the lymphatics of the brain meninges to absorb the fluid, just as the peritoneal vessels do after ovariectomy, so admitting of rapid union of the whole skin-wound ; and, in the second place, it acts as a kind of scaffold for the building up of normal connective tissue in the

part. This latter point is very obvious in the lower animals, in which, if we reopen the wound at the end of a few days, the cavity is always found filled with a difficult, spongy, pink connective tissue, the meshes of which contain the above-mentioned wound-exudation. It is this connective tissue which is to form an elastic barrier between the scalp and the brain. As a general rule, it will never be necessary to do more than relieve the tension in the wound once. At the end of a week or five days the wound may be lightly covered with a little powdered boracic acid, cotton-wool and collodion; and the stitches may be removed at any time after the first week. It will always be found that the scalp tends to fall in a little at the seat of operation; but, if the foregoing directions have been faithfully followed out, the hollowing will be slight. It may be considered as a point of practical importance whether a patient will not run considerable risk in pursuing his avocations with a large gap or gaps in the skull. As a matter of fact, this is of little account, as evidenced by experience."

In case a second operation be necessary, it will be found that the cicatricial tissues referred to above will be more vascular than the normal tissues, and the dura mater will be slightly adherent to the surface of the brain close to the cut margin on the dura mater. Old cicatrices in the substance of the cortex, above all those which have healed by suppuration, filling up cavities caused by loss of substance, frequently displace large vessels and give passage to large veins.

Mr. Horsley reported three cases of operation on the brain for epilepsy, in which the patients recovered. In one case a tumor was removed, and as the brain substance all around it appeared dusky and rather livid, he removed all the part apparently diseased. Microscopic examination showed that the tumor was of tuberculous origin. Since Mr. Horsley's paper was read he has operated on another case of tumor of the brain. The patient was a man who had been absolutely hemiplegic for a month, and had passed into a semi-comatose condition; and before the development of these symptoms he had suffered from fits and a terrible pain in the head. Mr. Horsley trephined over the motor region of the right hemisphere, and removed a tumor weighing four ounces and a half. On the day after the operation the patient was perfectly rational and free from pain. On the fourth day the wound was entirely healed. The successful outcome of these four operations gives all the more value to his admirable paper.—*Journal of the American Medical Association.*

MULTIPLE SYNOVITIS IN TYPHOID FEVER.

By J. S. BAILEY, M.D.

In the fall of 1885 (a very dry season) I attended a family, including a man, wife, two daughters and two sons, the youngest eighteen years old, for typhoid fever.

Out of the six patients but one died—Patrick, the father, aged sixty-seven years. In four of the patients the disease ran a typical, but comparatively mild, course. In the boy above-mentioned, who is a cripple of two years' standing, with an ankylosed knee from rheumatic synovitis, a considerable intestinal hemorrhage occurred on the twentieth day, but soon afterward the tongue became moist and clean, the motions were perfectly formed, the appetite returned. In these cases the antipyretic value of quinine was preëminent.

The main object of the present paper is to call attention to the case of Ben, twenty years of age, in which there was a unique and rare complication in the seventh week of *multiple joint pains*, which have been likened to rheumatism, but until there is a clearer insight into their nature we cannot accept their similarity. From the beginning to its termination the case was of extreme severity. His sickness began fourth in order. He was frightened, and battled manfully to keep on his feet. He prescribed for himself large doses of whiskey, quinine, calomel, purges and Crab Orchard salts, but to no avail.

During the first week he had a bronchial catarrh, with a pleuritic stitch of such severity as to require morphia hypodermically. There was nose-bleed every day. Delirium came on early. The temperature exhibited regular morning and evening variations, each evening being about two or three degrees higher than that of the morning. The second and third week the temperature was at its maximum, and during the middle of the latter period stupor was most marked. While the remissions were somewhat more manifest, there was exhibited a most unusual and (to me) unequal disproportion between the pulse and the temperature. The pulse became abnormally slow from having been very fast, running down as low as 40, and it did not rise above 60 for seven or eight days, when again it assumed a rather quicker action, but not to be compared

with that in the first days of his illness. The thermometer in the axilla during this slowness indicated, morning, 102° Fahrenheit; evening, 103° or 104° Fahrenheit. This abnormality was alarming, but, considering it due to an organic change in the muscular structure of the heart from the continued-fever poison, I increased the dose of infusion of digitalis, gave alcohol unsparingly, and added to the *R* tinc. nucis vomicæ. These remedies, while not increasing the rate, added materially to the tone and volume of the pulse.

A miserable bed sore over the sacrum now began to give annoyance. The slough which came from it was as large as a saucer. The fourth week found the mind out of time, incoherence and subsultus very marked, with loss of hearing on the right side, due to suppuration of the middle ear. He was hanging in the balance. In the sixth week he began to improve; all signs were hopeful. Subsidence of diarrhoea and tympanites; tongue became moist and intelligence fully returned; the temperature had almost returned to the normal; some desire for food; he was taking cognizance of people and things. On the forty-seventh day I was hurriedly called to see him in the early morning; was told he had had a hard chill during the night; the temperature was 104° Fahrenheit, though he had sweat profusely. The stomach was much disturbed; the pulse so feeble and the prostration so great as to create fears of his being quickly taken off. He was suffering agonizing pains, the legs were drawn up, the knees bent at an acute angle, and I suppose that either peritonitis or perforation had taken place. The fever was intense; breathing quickened; there was jactation. I remained all day and at night. By next morning he was apparently better. When the time for the toilet of the bed sore came, it was seen that he could not be moved, his knees were quasi-ankylosed. A more critical examination showed that both knees, both ankles and both tarso-metatarsal articulations were inflamed and intolerant of the least pressure. He had pain in his left breast, a teasing cough, the sputa streaked with a little blood; his breath was offensive and the tongue highly coated. Later in the day the left hip became very sore, and by nightfall both elbows and wrists were involved. The swelling was marked by considerable cutaneous redness and puffiness, the œdema beneath the surface making it look as though an abscess was lurking. This was a novel complication—a clinical feature I had not seen mentioned in any monograph or text-book on typhoid fever.

The position of the patient was characteristic of acute articular inflammation. He winced and whimpered at a slight touch, but there was marked pain on deep and continued pressure. After reflection, in vain searching through the books, I diagnosed the complication as a *multiple synovitis*, involving simply the synovial and periarticular tissues; that it was pyæmic in its nature; that the intestinal ulcerations gave rise to absorption into the blood of the *materies morbi*, and that, while it bore a strong resemblance to, in reality it was not, rheumatism. The inflammation speedily subsided, but the articulations for many weeks were quite tender. The treatment was essentially constructive—generous wines, pure mountain brandy, freshly drawn milk, substantial soups, the enforcement of absolute rest, and last, but not least, quinine.

The “malignant influence,” about which Stokes, of Dublin, has talked so much, played in this instance almost too preponderating a rate for art to overcome; but the subject is to-day an example of a patient cured by “preventing him from dying.”

The literature upon this subject is meagre. While synovitis during typhoid fever is a sufficiently rare affection, it is true that two forms of it occur in connection with the disease—the uni- and the multi-articular. The non-articular disease is local, and is regarded by Barwell as a specific part of this fever, and many cases from various sources are reported. The multi-articular is a rarer event, though several well-authenticated cases are mentioned in current medical literature; it is constitutional, occasions more suffering, and its termination is not always a happy one.—*The College and Clinical Record*, September. 1886.

GELSEMINE.—Like strychnine, gelsemine is not destroyed by concentrated H_2SO_4 . In cases of poisoning with the extract or tincture, it is well to remember that these preparations contain gelseminic acid, and, therefore, after the addition of an alkali, they become fluorescent.—*Medical Chronicle*.

THE BLUE DISCOLORATION OF THE VAGINAL ENTRANCE AS A DIAGNOSTIC SIGN OF PREGNANCY.

Before the American Gynecological Society Dr. Thomas R. Chadwick, of Boston, said that he had made it a point in all cases of early pregnancy to make a note of how much discoloration he could detect; he had tables of four hundred and forty cases examined. He had divided the discolorations into four groups: First, doubtful, where it was so faint that he could not be certain of its presence. Second, suggestive, where it was more marked. Third, characteristic, where the discoloration, though faint, is confined to the anterior wall of the vagina and more particularly to the urethra, just below the meatus and on either side of the meatus. In every instance where this was present the woman was pregnant, with one exception; and, Fourth, marked, where the congestion has become deep and exhibits the appearance constantly seen during pregnancy.

He did not claim that the characteristic discoloration is seen in every case, but if carefully looked for, it would be found quite pronounced in the majority of cases. The color varies from a violet to a dark, dusky, almost black color. He claimed that this sign was of especial value in cases of retroversion where the size of the uterus could not be determined, and in extra-uterine pregnancy. He had obtained much assistance from it in a few cases of pregnancy accompanied by fibroid tumors, and also where there was a large accumulation of abdominal fat. When present, this sign is of decided value in the early months of pregnancy, but its absence should not be accepted as a positive proof against pregnancy. Cases were cited in which the discoloration had been observed in the seventh or eighth week of pregnancy.

DISCUSSION.

Dr. H. P. C. Wilson, of Baltimore: "I consider this one of the most valuable means of diagnosing pregnancy in the early stages. It is invaluable in cases where women wish to deceive you."

Dr. A. J. C. Skene, of Brooklyn: "This seemed to me to be a most reliable sign in the early months of pregnancy. I believe that

it is an illustration of the physiological hyperæmia of the formative stage of development."

Dr. Joseph Taber Johnson, of Washington: "Some years ago I referred to this point, and the discussion which followed seemed to indicate that the discoloration was a congestion produced by interference with the return of the venous circulation by the pressure of the enlarged uterus. It was held that the same discoloration could be produced by any other tumor which would have the same effect as the pregnant uterus."

Dr. William H. Parrish, of Philadelphia: "In regard to the continuance of the discoloration after labor, I have noted that in primiparae, where involution of the vagina takes place completely, the discoloration disappears with corresponding rapidity. Where there is sub-involution, the blueness may continue for a longer time. In multiparous women, where the blueness was marked, I have associated it with a condition of sub-involution of the vagina."

Dr. James R. Chadwick, of Boston: "I have failed to notice any persistence in the discoloration described. The general discoloration may persist, but this characteristic blueness, will, I think, be found to disappear. I have looked for this sign in forty or fifty cases of fibroid tumor, and have not found it in a single instance."—*Medical and Surgical Reporter.*

THE ALTERNATIVES TO CRANIOTOMY.

Dr. Robert Barnes sums up his argument in the discussion of this subject before the British Medical Association (*British Medical Journal*, October 2) as follows:

1. The legitimate aspiration and tendency of science is to eliminate craniotomy on the living and viable child from obstetric practice.
 2. The advance of hygienic rule, the improvements in the forceps, in turning, in the induction of labor, and in obstetrics generally, have materially curtailed the field within which craniotomy can be justifiable.
 3. In the most extreme degrees of pelvic distortion, where de-
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livery *per vias naturales* can only be effected with doubtful success to the mother, Porro's operation is the legitimate alternative for craniotomy, it being understood that the opportunity of inducing abortion has gone by.

4. In less advanced degrees of pelvic contraction, but still incompatible with the delivery of a living child *per vias naturales*, the opportunity of inducing abortion having gone by, but in which craniotomy would effect delivery with strong presumption of safety to the mother, the Cæsarian section may be a proper alternative for craniotomy. This is the most debateable point.

5. In the minor degrees of contraction, say from three inches to three and a half or three and three quarters inches, the opportunity of inducing labor having gone by, the far greater safety to the mother obtained by craniotomy, and the prospect of living children in future pregnancies by inducing labor, make craniotomy the proper course to adopt.

6. In other emergencies than deformity, as in obstructed labor from ovarian tumors, the alternative to craniotomy is to remove the tumor.

7. In cases of immovable tumors, Porro's operation is the proper alternative.

8. In rupture of the uterus, the child being delivered or not, Porro's operation is the proper alternative. There the interests of mother and child coincide.

9. In cases of disease or tumors of the uterus obstructing delivery, Porro's operation is the proper alternative.

10. In atresia of the cervix or vagina, Cæsarian section or craniotomy may be necessary; but incisions and gradual dilatation will more frequently be the proper alternatives.

11. When obstruction is due to hydrocephalus or dropsy in the child, embryotomy or tapping is indicated. When the child is dead, embryotomy is indicated, and decollation when the child is impacted, and turning is hazardous.

12. In convulsions and hæmorrhages, the proper alternatives for craniotomy are found in the more scientific methods of conducting labor under these complications.

Lastly, but the dream of Tyler Smith, the abolition of craniotomy, will be fully realized only when hygiene shall have triumphed over disease and deformity.

THE TREATMENT OF A FORM OF DIARRHŒA IN CHILDREN.

There is a form of diarrhœa in children, usually occurring after weaning, and from that period to four or five years of age, which is characterized by the most horrible offensiveness of the motions. This is so marked that it is generally at once mentioned by the parents. It is commonly met with in summer, but is not strictly what is known as infantile diarrhœa, in which disease the stools are sour, but not necessarily fetid. Probably this form of diarrhœa differs from the diarrhœa of younger infants in being caused by the growth of the ordinary bacteria of putrefaction. It is not amenable to treatment by any astringent, nor has any alteration of diet much effect upon it.

Dr. James Braithwaite (*British Medical Journal*, July 17, 1886), however, thinks that it may be successfully treated by disinfecting the bowel contents by means of salicylate of iron, as in the following prescription, which is suitable for a child two years of age: Sulphate of iron, $\mathfrak{D}\text{i}$; salicylate of sodium, $\mathfrak{D}\text{i}$; glycerin, 3 iij ; water to three ounces. The iron and the salicylate should be dissolved separately, and the solutions mixed. The color is darker than port wine, and the taste not unpleasant. One teaspoonful must be given every hour, until the stools would become well blackened, which happens in about twenty-four hours; or a larger dose may be administered at longer intervals. The medicine should then be given every three or four hours, and occasionally a small dose of castor-oil, to clear the bowels well out, and to get the secondary constipating effect of the oil.

In hospital practice, and amongst the poor, it is not so successful as it would be if it were possible to remove the child from the family living-room, the air of which is usually very impure, and is made worse by the smells incidental to cooking, and the presence of a sink.—*Therapeutic Gazette*.


COCAINE IN ANGINA PECTORIS.—Lashkevitch recommends cocaine in doses of one-third of a grain three or four times a day for the relief of angina pectoris. In addition, inhalations of oxygen during the attack are advised.—*Medical Record*.

EDITORIAL.

THE NORTH CAROLINA MEDICAL JOURNAL.

A MONTHLY JOURNAL OF MEDICINE AND SURGERY, PUBLISHED IN
WILMINGTON, N. C.

THOMAS F. WOOD, M. D., Wilmington, N. C.,	} Editors.
GEO. GILLETT THOMAS, M. D., " "	

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SCARLET FEVER AND THE PUBLIC SCHOOLS.

In the absence of a law in North Carolina making the reporting of infectious diseases compulsory upon the physician having them in charge, a word of warning may not be amiss, in view of the probable continuance of scarlatina in many towns in our State as the result of its transportation from a convalescent child to its fellows in the schools. The vexed question of the period of safety in the convalescence of this disease, both for the patient and those who are unprotected by a previous attack, has been so often discussed that it is hardly new to any of our readers to be told that every

case must be judged by itself. But it is an admitted fact that the disease is communicable by fomites, and the doctor and nurse must bear the odium of occasionally being the means of transporting the poison. But it is with especial reference to the introduction of the disease through the public schools that we wish again to call attention, and to urge that a rigid quarantine be always enforced against infected children, and that care be exercised that the child be not only isolated at home from the other members of the family, but also that a close observation be established to see that every possible source of danger shall be cleared away before the child is allowed to mingle again with its schoolmates. Along with the precautions is another almost as important, to see that all the children in the family in which a case of scarlatina occurs shall be kept at home until sufficient time has elapsed to convince the intelligent physician that the danger of further infection is passed. It is needless to call attention to all discharges from the ear or from purulent collections arising as sequels of the disease as fertile causes of a renewal of the disease in exposed persons.

The county boards of health will do the public a service to advise the people of the necessities in the management of this disease, whenever it shall make its appearance in a community. We fear this has been neglected too often of late, because most probably the type of the disease has been generally mild in character, a delusive safeguard that should be avoided. For while the features of the malady rarely change during the prevalence of any epidemic, its reappearance after a period of comparative freedom, may be marked by a most distressing malignancy.

To the specific dangers of scarlet fever is added the increased liability which its invasion brings to an attack of diphtheria, as a complication, and a further reason why so much caution should be exercised in the isolation of the infected for a sufficient period to insure complete recovery. There is one other caution to add to this, that all clothing that cannot be disinfected, either by chemical agents or the greater purifier, heat, shall be destroyed, and that the parents or guardians of the sick shall be charged that the patient shall not be allowed to wear any garment out of the sick room that has not been made safe by the means which the physician shall prescribe. We do not mean to sit in judgment upon any violation of these well-known laws of sanitation, but to recall to our readers these well-attested truths, which, from their very triteness, are often allowed to pass without proper enforcement, the physician vainly supposing that the friends of the sick have known of these laws and a repetition in detail seeming unnecessary.

REVIEWS AND BOOK NOTICES.

RHEUMATISM; Its Nature ; Its Pathology and Its Successful Treatment. By T. J. MacLagan, M.D. Wm. Wood & Co., New York.

In 1876 Dr. MacLagan introduced to the profession a new treatment of rheumatism by salicin, and in his paper presenting his new remedy he advocated his view of the origin of rheumatism as one similar to that of malarial disease. This present work is a more complete exposition of his views.

Of the varieties of rheumatism the author sets out the acute, subacute and chronic. He excludes from his varieties acute gout, acute rheumatoid arthritis, pyæmia with joint inflammation and gonorrhœal rheumatism.

Of the chronic form he says its true nature is only a milder form of the subacute, and that the acute and subacute run into this type ; but it may also be the precursor, as well as the sequence of the other two varieties. The duration of the disease under the treatment of salicin or salicyl compounds, he claims is now reduced to hours, where it formerly lasted days, and to days, where it formerly occupied months in its course. Its seat is chiefly in the motor apparatus and in the fibrous and serous structures of this portion of the body. But all these tissues do not suffer alike, and its ravages are mainly confined to fibrous structures which are engaged in locomotion, and but seldom seen in the periosteum or dura mater, both structures of fibrous tissue. So the serous membranes of the brain, lungs and abdominal organs, though far exceeding the extent of that investing the heart, are yet much less often affected, and rarely so seriously, as the latter. Dividing all fibrous tissues by function into three classes, namely, those that support entire organs, those that bind together and give support to the constituent parts, and those that regulate movements, the first instanced in the coverings of the liver, uterus, etc., the second in ordinary connective tissue, and the third in the texture of the joints, it is the latter form that relegates chiefly the ravages of the rheumatic poison. For he says that the susceptibility of a given portion of this tissue to the rheumatic poison is in direct relation to the amount of strain which is apt to be thrown upon it, for the

joints which suffer most are those which do the most work, and the only internal organ habitually affected with rheumatism is the one whose fibrous tissues are continually under strain; and that the serous membranes of the larger joints and pericardium being the ones engaged in facilitating active and vigorous movements, are likewise the ones chiefly affected by the disease under discussion. Of the nature of rheumatism, he holds to its heredity, its liability to occur between fifteen and fifty years of age. His argument all leads to the conclusion that it is constitutional trouble of a definite and specific character; that its heredity means a transmitted predisposition to the disease; that its attacks occur at a particular age following the law which seems to govern in other constitutional diseases; that the repeated attacks in one individual, the affection of joints in rapid succession simultaneously, all point to it as a specific and constitutional affection. To his own satisfaction the author demolishes the lactic acid theory of the origin of rheumatism, and with equal vigor he sets up his theory of a malarial origin. This leads our author into a long discussion of malaria and its manifestations, and brings him happily, to himself, into his selected explanation of rheumatism as the offspring of a miasm. This is a new ground of battle, and contestants will find Dr. MacLagan a sturdy opponent to all who enter the lists against him. His general discussion of rheumatism is divided into consideration of affections of the loco-motor apparatus and the vasculo-motor apparatus by the rheumatic poison. These studies cover five chapters. His treatment follows the same divisions, and he reviews the action and results of the various drugs that have been given for the cure of rheumatism, and brings himself gently and surely down to his own potent remedy. He claims the most consideration for salicin, which has a dual value, tonic and anti-rheumatic. But whether the practitioner shall give salicin or salicylic acid, it must be given promptly and boldly. Twenty to forty grains should be the dose every hour until there is the first mark of its action in the subsidence of pain, and it will require an ounce, more or less, to accomplish the removal of the acute symptoms, and then slowly diminishing doses will be needed to secure the benefit derived from the first portion given.

In considering the treatment of rheumatic affections of the heart, the vasculo-motor system, he follows the same urgent line of dosing,

and claims for his remedies preventive, as well as curative, powers. In the mode of action of salicin and salicyl compounds in the therapy of rheumatism, he draws a parallel with the action of quinine in malarial fevers (a natural suggestion from his theory of malarial origin of rheumatism), but he denies to the cinchona alkaloids any great virtue in the cure of the former disease. He also denies the conversion in the system of salicin into salicylic acid, but claims that its change ends in saligenin, saliretin and salicylous acid.

The last three chapters of the book are devoted to the study of cerebral rheumatism, the relation of rheumatism and chorea and rheumatic hyperpyrexia. The book is essentially original, bold and bright, and while it contains many opinions and statements that are open to question, it is well worth the consideration of the profession.

A TREATISE ON THE PRINCIPLES AND PRACTICE OF MEDICINE. By AUSTIN FLINT, M.D., LL.D. Sixth Edition. Assisted by WM. H. WELCH, M.D., and AUSTIN FLINT, M.D. Lea Brothers & Co., Philadelphia.

There has not arisen among the teachers of medicine of this age one whose words have been so carefully and trustfully studied as those of the late Dr. Austin Flint. Beginning his professional life with a determination to become a master of the details of his work, his close observation and studious habits, aided by accurate record of whatever met his eye, fixed his place among his fellows and students as a man worthy of their highest trust in the safeness of the counsels which he gave. Conservatism, guided by a liberal mind and acute intelligence, has marked his career, and no one can study this edition of his work on general medicine without being inspired with feelings of veneration for the author, and gratitude that his work in life should have been rounded up in this volume.

It was largely rewritten by himself, and he had added to his own valuable labors those of Dr. Welch, of Johns Hopkins University. To the latter we owe all of the first seven chapters, devoted to the study of general pathology, and a great part of the eighth, on *étiology*. Entirely new articles have been inserted in this edition on Infectious Tumors, Syphilitic Diseases of the Lungs, Cerebral Syphilis, General Considerations Relating to Inflammatory and Structural Diseases of the Spinal Cord, Spastic Cerebral Paralysis of Children, Hereditary

Ataxia, Myœdema, Multiple Neuritis, General Pathology of Fever and Milk Sickness.

Dr. Flint declares his adhesion to the germ theory of disease as the most rational explanation of morbid phenomena. Diagrammatic engravings have been introduced to illustrate the descriptions of cerebral and spinal diseases with reference to topical diagnosis. From the first edition of this work to its completion in the one under notice, the author has steadily kept pace with all the advances in medicine, and it has been his labor, and one well accomplished, to glean from all the fields, besides his own fruitful one, the richness of the harvests, his keen intellect leading him always in selecting the genuine grain and in carefully winnowing out the chaff. To those students of medicine who have so often appealed to his works with assurance of help it is needless to commend this book, and to those who are now to take it up for the first time there is great enjoyment in store.

Surely the distinguished man has erected for himself a lasting monument, an abiding place for his memory in these words of wisdom, which will be a source of admiration to his own generation and those to follow him.

THE ECLECTIC MAGAZINE.

It does not do for the doctor to be reading physic always, lest he carry the "smell of the shop" into every parlor and dining-room where he meets his healthy friends. The doctor's storehouse of general knowledge does in many a community more for him than profound learning in his technicalities, as the former is within the comprehension of his patrons, and of the latter they only judge by his general accomplishments. But business reasons aside, we only started out to say that if there be a doctor who is reaching out for good reading and knows not which way to turn in the wilderness of good things, we commend him to the habitual reading of the old *Eclectic Magazine*. It has stimulated the taste of generations for the best of reading, and has satisfied generations with the healthiest of intellectual food.

A LABORATORY GUIDE IN URINALYSIS AND TOXICOLOGY. By R. A. WITTHAUS, A.M., M.D. Wm. Wood & Co., New York.

Dr. Witthaus has given to the laboratory student, and the busy physician as well, a useful and concise manual for the analysis of

urine, with close description of the constituents, normal and abnormal, of urine, which is accompanied in each case by the tests for the discovery of each of these components. This is the portion of the work devoted to the qualitative analysis of urine. The quantitative analysis follows, and the study of the urinary deposits completes the work on urinalysis.

The detection of poisons is studied in three classes: Volatile, Mineral and Organic, with short but clear directions for their apprehension. An extended review is unnecessary in view of the reputation of the author and the character of the work, but it will find appreciative readers whenever it is consulted.

ANALYSIS OF THE URINE, with Special Reference to Diseases of the Genito-Urinary Organs. By K. B. HOFMAN, of the University of Gratz, and R. ULTZMANN, of the University of Vienna. Translated by T. Barton Brune, A.M., M.D., and H. Holbrook Curtis, Ph.B., M.D. Second Edition. D. Appleton & Co., New York.

The changes that have been made in urinalysis and the rapid exhaustion of the first edition induced the authors to issue this edition.

After a short introduction, partly historical of the study of the subject of the work, there is a closely written chapter on the Histology of the Urinary Organs, and one on the Secretion of Urine, fully sufficient to set out these facts for the student.

The physical characteristics and chemical composition of urine is then written out in detail, with an accurate account of each. This includes, of course, the normal and abnormal constituents of urine, and there is appended a full description of all the tests recognized and practised in the detection of these matters.

The directions for procuring the necessary apparatus and reagents for the approximate determination of the urine's constituents are of especial value to the beginner in this line of study.

Following the chapter on Quantitative Analysis of Urine is a chapter which is to serve as a key to Approximate Analysis.

A chapter is devoted to General Diagnosis, and then we have a most elaborate study of Albuminuria, which is of great value. The book will be found of assured value, with those who study its contents, among the volumes devoted to the consideration of the important, and often knotty, problems growing out of the investigation of the urine in disease. There are eight colored plates appended to the book illustrating the deposits in the urine.

THE CARE OF THE EYES AND EARS. By RICHARD H. LEWIS, M.D., member of the State Board of Health and Surgeon for Diseases of the Eye, Ear and Throat to St. John's Hospital, etc., etc. North Carolina State Board of Health. 1886.

This paper was written for general distribution, as one of the health tracts that the Board of Health of this State intends to issue for the instruction of "those not at all versed in medicine."

The paper is opened by a short and popular description of the normal eye, which, though short, is not wanting in clearness. After which follows the discussion of weak-sight, far-sight and near-sight. A review of these subjects is not expected in the notice of this most excellent paper, nor of the portion devoted to the care of the ear. But in the remarks on blindness especial attention should be directed to the remarks concerning the loss of sight incident to inflammation occurring in the first few days after birth, and the remedies that are advised for its prevention "till the doctor comes." That is a good hit he makes at the old granny's remedies for this serious condition of the eyes, that is, the use of breast-milk, rotten apple, tea leaves, alum curd, and other of the delusions of the monthly nurse. We should be ashamed to believe that any physician allowed or fostered such practices, and therefore we hardly feel justified in recalling these absurdities in this notice. A like practical disposition is made of the study of the ear in a way to teach the general laity. There is no attempt at technical display, here or elsewhere, and the charm of the tract, which name we shall stick to, is its exceedingly practical character.

It comes within our province, however, to call the attention of those of our readers in this State, who are interested in the well-being of school-children, to the directions which are given for the proper regulation of light in school-rooms and for the arrangement of desks, as well as the air-space necessary to healthy school-rooms. In brief, he advises 200 cubic feet of air and 300 or 350 square inches of glass (as window measurement) for each child. The light is to be admitted chiefly from the sides of the room, which is to be oblong, and best from its northern side. A dead wall should always be in front of the children. A black-board at the back of the teacher's desk, which is to be at one end of the oblong room, facing the two end windows, will partly suffice for this purpose.

The walls should be tinted, but not the ceiling. The desks should

be so proportioned to the height of the seats as not to fetch the pupil's face too near the book. The opposite extreme will hardly need mention. The child's back should find a comfortable rest against the back of his seat, so that he will not be called upon to lean on the desk for relief of fatigue.

This paper, or, as we have called it, a health tract, should be carefully read by every teacher in the State, and the Superintendent of Public Instruction cannot better serve the department of which he is the head, than by asking the Board of Health for such distribution as will reach his teachers. The days of the log-cabin school-house, with the little square window in each side, made of four panes of glass, with no ventilation except the cracks in the floor, in the walls and under the doors, with no regard to the amount of fresh air which each child is to get, and no arrangement for constant change of the air in the room—the days of these houses have passed. In days long past they may have been the quiet nooks from which future presidents caught sight of the gleaming dome of fame's temple, and were inspired to begin in these stuffy, dim and obscure places the great race that was to lead them to the rich goal of their ambition. The education of children is not accomplished in this way now, and Dr. Lewis, by his plainly written words of caution, is lending the hand of his special branch of medicine to lift up the schools all over the State, from the log-cabin stage to that of the modern school-house, that the tenement may be in keeping with all the new ideas that the teachers are seeking every year to attain at the normal schools, and with the improved methods that are parts of their ever-growing education.

If the Board of Health can continue its good work as successfully and present it to the public as intelligently as our author has the share of the work allotted to him, there will be no need of fear that abundant appreciation will not reward their labors.

It will be a service well performed for the county boards of health to see that this pamphlet has proper distribution.

SIM'S SPECULUM IN DELAY OF THE AFTER-COMING HEAD.—Dr. Robert McC. Lord, of Kansas City, writes: "In pelvic presentations, when, after the birth of the body, the head cannot be immediately delivered with safety, and death of the child from asphyxia is imminent, air may be freely admitted to its mouth and nostrils, and pulmonary respiration established, by gentle traction on the posterior vaginal wall with a Sims speculum."—*Medical Record*.

SOCIETY REPORTS.

THE BALTIMORE ACADEMY OF MEDICINE.

STATED MEETING, OCTOBER 19, 1886.

SUDDEN FAILURE OF HEART'S ACTION THE RESULT OF DIMINUTION OF ATMOSPHERIC PRESSURE.

Dr. Frank Donaldson, Jr., referred to a case of sudden failure of the heart's action that he had recently seen. The cardiac depression was apparently the result of the diminution in atmospheric pressure that the patient experienced while in a high altitude.

The same sudden heart failure, he observed, is seen as a result of rarefaction of the air in the Pneumatic Cabinet. The approach of the heart failure is indicated by a gradually weakening and irregular action of the pulse.

He thinks the cardiac failure due to a diminution of pressure *upon* the heart, while at the same time the pressure *within* the heart remains the same.

Dr. S. C. Chew has never had his attention called to just such a case, but thinks Dr. Donaldson's explanation a very probable one. He thinks the irregular and tumultuous action of the heart due to a lessened pressure upon the heart generally, thus allowing of a universal dilatation of the capillaries.

Dr. F. Donaldson, Jr., said that cases of the same nature as the one referred to by him had been seen by other observers—Loomis records 48 of them. Solly has seen a number of these cases in high altitudes, many of whom had never experienced a preëxisting cardiac disturbance previous to their going to these elevations.

SHOCK CONSEQUENT UPON SURGICAL OPERATIONS.

Dr. J. J. Chisolm said, at the last meeting, attention had been called to the small amount of shock consequent upon surgical operations upon young children. In his experience old persons stand them as well.

A CASE OF PLEURISY.

Dr. Henry M. Wilson said he had been in attendance upon a lady for about six weeks or two months. She was very carefully nursed by her sister during this time. One day she called his attention to a slight dyspnoea, and referred to a slight pain in the side, only lasting for a few minutes, that she had felt a few nights previous. Upon examination he found the pleura on that side in a state of inflammation, with its cavity filled with fluid and the heart in consequence displaced. Thought it singular that so extensive an inflammation should have been in progress with so few outward symptoms.

Dr. S. C. Chew said often a less extensive inflammation in this locality gave rise to much more pronounced symptoms than where the process is more extensive. He related a case in his own practice similar in general to that of Dr. Wilson. It was in a man, and his pleural cavity became filled with fluid before he was aware of the existence of any trouble whatever of a serious nature.

PERITONITIS DUE TO PERFORATION OF VERMIFORM APPENDIX.

Dr. Henry M. Wilson referred to a patient, a man, aged 27 years, whom he had seen. He found him complaining of a not very severe pain over the abdomen. The next morning he was sent for hurriedly and found his patient in collapse, from which he aroused him only with the greatest difficulty. The pain continued without being lessened. He diagnosed peritonitis. The man had had during the previous summer moderate pains over the abdomen at different times. Two weeks after having first seen his patient he died.

Autopsy revealed a swelling containing fluid over the left inguinal ring. It was aspirated and about three pints of fetid pus escaped. Within the abdominal cavity there was a massing together, by means of a fibrous exudation of the omentum and intestines in such a way as to form, so to speak, a second diaphragm, dividing the cavity into two distinct parts. The pelvic portion was filled with pus.

The vermiform appendix was perforated, and in the most dependent portion of the pelvis there was found a hard mass of fecal matter about the size of a minie-ball. This mass was without a nucleus, as was shown by section made at a later date. He thinks

perforation took place at the time of the extreme collapse to which he referred. He referred to a peculiar pain in the penis, that lasted for about half a day, as one of the most prominent symptoms.

INTUBATION OF THE LARYNX.

Dr. F. Donaldson, Jr., recently intubated the larynx of a child with membranous croup. There was apparently a temporary benefit, but the child died in about eight hours.

Dr. S. C. Chew, who had seen Dr. Donaldson's patient was yesterday called in consultation to see another child suffering from the same trouble, but in a much more precarious condition. The parents of the child refused to permit any operative procedure. Though he has not seen the patient since he imagines it must be dead. Does not think tracheotomy or intubation of the larynx would have done any good, as the obstruction was less in the larynx than farther down in the trachea.

ASTIGMATISM IN TWINS.

Dr. J. J. Chisolm has recently seen two cases of interest—two men, twins, aged 19 years—each suffering from the same degree of astigmatism and of the same angles.

Two girls, twins, aged 12 years each, likewise suffering from the same degree of irregular astigmatism and the same angles.

THE INFLUENCE OF REMOVAL OF ONE OVARY UPON THE SEX OF SUBSEQUENT CHILDREN.

Dr. S. C. Chew spoke of a young lady from whom one of her ovaries has been removed. As she is about to be married, it will be of interest to note the effect upon the sex of her children.

Dr. B. B. Browne said the theory of removal of an ovary affecting the sex of the subsequent children was, he thought, pretty well abandoned, because of women with but a single ovary having given birth to children of different sexes.

Dr. J. J. Chisolm referred to a case of

POISONING BY COCAINE.

One year ago he operated upon a man for glaucoma. Recently, while on his way up the bay, the man caught cold, and, in conse-

quence, there was a conjunctivitis set up. He applied to the inflamed conjunctiva a 5 per cent. solution of nitrate of silver, after first having anæsthetized the eye with cocaine. In half an hour sight was reduced in that eye to such an extent that he barely had perception to light. The man had, in consequence of the instillation of cocaine, an acute traumatic glaucoma.

Eserene was applied to the affected organ, with the result of counteracting the action of the cocaine, and in less than three hours its action was apparent, and in five hours sight in that eye was completely restored.

He thinks had eserene not been applied a destructive glaucoma would most certainly have set up. This is the first case of the kind he has seen.

Dr. B. B. Browne has used cocaine with good effect in the vomiting of pregnancy. He administers 10 gtt. of a 2 per cent.

Dr. H. P. C. Wilson exhibited

A NOVEL FORM OF CLINICAL THERMOMETER

that he had recently purchased in London. It is encased in a locket, and can be worn upon the watch-chain. It, however, possesses the great disadvantage of not being self-registering.

BALTIMORE, MD., November 2, 1886.

BROMIDE OF ETHYL IN CONJUNCTION WITH CHLOROFORM.

Dr. J. J. Chisolm is now employing the bromide of ethyl in conjunction with chloroform as an anæsthetic. His method is to anæsthetize the patient first with bromide of ethyl, and then, after discontinuing this agent, to keep up the anæsthesia with chloroform. The advantage claimed by him for this method is that he accomplishes the desired result much more quickly than when chloroform is used alone.

Dr. H. P. C. Wilson has been very forcibly impressed with the universal absence of nausea in all patients whom he has seen chloroformed abroad. He has had an opportunity to see a large number of persons anæsthetized in Europe, and has never yet observed nausea in any of them. He has made enquiry, but can get no satisfactory explanation for its absence.

Dr. C. C. Bombaugh asked Dr. Wilson if the frequency of nausea in his cases might not be attributable to impurities in the chloroform. He said oftentimes aldehyde is present in chloroform as an impurity. In his experience in army surgery he had used it freely and had no cases of nausea.

Dr. H. P. C. Wilson replied that he had no reason to suspect the drug used by him, as he never employed any other than Squibb's.

Dr. Samuel Theobald has avoided nausea to a great extent by giving a hypodermic injection of morphia and atropia about thirty minutes before the time for administering the chloroform. The period of recovery after this treatment is quiet and without excitement.

Dr. C. C. Bombaugh asked Dr. Chisolm if he had noticed any decrease in the number of patients nauseated since he has used bromide of ethyl in the early stages of the process of anæsthesia.

Dr. J. J. Chisolm said he had not seen much nausea lately, but could not say that the decrease was due to his plan of operating.

Dr. Christopher Johnston said it was singular how a patient would at one time take an anæsthetic with but little or no discomfort, and at another time the result would be almost fatal. He referred to a child with hare-lip upon whom he had occasion to operate. The fissure was of such a size as to necessitate two operations. The first time he brought the child under the influence of the anæsthetic there was nothing to create alarm, but at the second operation the patient became almost lifeless.

TRACHEOTOMY FOR MEMBRANOUS CROUP.

Dr. Christopher Johnston spoke of an interesting tracheotomy that he had performed. The history is as follows: On the night of October 6th he was called to see a child, of about three years of age, suffering from membranous croup. The patient was then very ill, studulous breathing was present. On the morning of October 7th he did tracheotomy, using a Durham tube. For a time the operation gave much relief. For a period of five to seven days there was no attempt to breathe through the larynx, but all the respiration was carried on through the tube in the trachea. After this time there was a considerable swelling of the tissues of the neck, the membranous formation increased and the formation could be seen in the trachea below the point of insertion of the tube.

The child's strength was supported by the constant administration of brandy. The upper part of the trachea and larynx was completely occluded by false membranes, which were dislodged by passing upward from the opening in the trachea a director to which was attached a piece of string tied to a bit of linen cloth. Intubation was also resorted to. Paralysis of the throat muscles allowed food to pass into the trachea, and it was extended through the tracheal tube. No air passed through the larynx for nine days. The tube was in the child's neck, in all, a little more than three weeks. After the removal of the tube the child grew better, and is now perfectly well. He calls attention to this case as being somewhat an exception to the rule, for it is very rare that a tube can be removed from the trachea at all after it has remained there so long as this one did.

Dr. J. Edwin Michael thinks there are many children whose lives are sacrificed by the neglect of this operation.

Dr. Christopher Johnston thinks one justified in doing this operation for no other purpose than to relieve suffocation. He had also another child suffering from membranous croup or diphtheria, in whom he used a spray of nitrate of silver solution. The tissues were supplied with nutriment by obliging the child to breathe an atmosphere of pure oxygen. It recovered from this attack, but eighteen months later he was called on to do tracheotomy on the same child who had contracted the disease again. The child recovered, but the tube could never be removed. A year afterward the child was suffocated by the accidental occlusion of the tube. Autopsy revealed a cicatricial contraction of the tissues of the larynx. Intubation of the larynx was frequently resorted to with no good result.

Dr. J. J. Chisolm saw a patient upon whom tracheotomy had been performed one year ago for syphilitic contraction of the larynx. The tube has remained in position for twelve months, and cannot be removed.

Dr. J. Edwin Michael saw a patient who had stenosis of the larynx. Dilation had constantly been carried on in order that the man might breathe, but upon one occasion this precaution was neglected and the man began to find breathing becoming more and more difficult until he became quite cyanotic. Dr. H. C. McSherry, who was the physician in attendance, called Dr. Michael in to do

tracheotomy. He tried to do laryngotomy, but found the cricoid cartilage ossified. He then made the opening further down. Relief was immediate. This patient wore the tube for months. Dr. McSherry dilated the larynx from the wound upward until the opening in the larynx was sufficiently large to permit closure of the wound in the trachea. There was some interference with his voice, but the man is now living and in good health.

Dr. Samuel Theobald wished to know if the introduction of these dilators did not give rise to considerable spasm.

Dr. Michael said it did at first, but the muscles soon became tolerant of their presence.

FORWARD DISPLACEMENT OF THE EYE-BALL, DUE TO A TUMOR.

Dr. J. J. Chisolm related a case that was of interest to himself. It was the displacement forward of the eye-ball, due to the presence of a tumor in the socket. The patient wanted the tumor removed if the eye could be returned to its position.

Upon anaesthetizing the patient he found the tumor to be an osteoma of the socket tissues, having its origin in the molar bone. The patient was allowed to come from under the influence of the chloroform and was told of his condition. He concluded not to be operated upon. This is the second of these cases that he has seen in the past year. In his second case the ball was so far pushed out that he removed it because of the disfigurement it gave rise to.

Dr. Christopher Johnston had had a patient with a tumor of the lachrymal gland. It became so large as to push the eye completely into the inner angle of the socket. On removal of the enlarged gland the eye receded to its normal position.

Dr. J. J. Chisolm: Within a week of the patient just referred to by him, saw a patient with the eye bulged out from an enlarged lachrymal gland. He asked Dr. Theobald if he had ever used hydrogen peroxide for clearing the secretions from offensive ears?

Dr. Theobald had not.

Dr. J. J. Chisolm finds it a very nice method. He first washes out the ear with warm water, then pours in the hydrogen peroxide. It causes an oxidation of the secretions, and in a few minutes the ear is perfectly clean.

CURRENT LITERATURE.

CLINICAL NOTES ON THE VALUE OF RESORCIN, CHITHYOL AND LANOLIN IN CUTANEOUS DISEASES.

By HENRY W. STELWAGON, M.D., of Philadelphia, Physician to the Philadelphia Dispensary for Skin Diseases, Chief of the Skin Dispensary of the Hospital of the University of Pennsylvania, etc.

Resorcin. - Employed in 25 cases of eczema, 5 cases of trichophytina, 3 cases of tinea versicolor, 6 cases of leg ulcer, 20 cases of seborrhœa and alopecia, 5 cases of psoriasis, 2 cases of sycosis, 1 case of lupus erythematosus, and 1 case of favus—total, 68 cases. In eczema, the remedy at times acts satisfactorily; but in the greater number of cases it aggravates. It seems to act best in eczema rubrum, and when the disease is upon the lower extremities. It should not be prescribed in greater strength than a 10 per cent. ointment—in fact, rarely more than thirty grains to the ounce. If applied in greater proportion, there is but one result, and that is, marked aggravation of the disease. In erythematous eczema also, it occasionally has a good effect. While a few cases of eczema were permanently relieved by this remedy alone, such a result is exceptional. It is more in the power that resorcin appears to have in controlling the itching that its advantage is seen. In this respect it seems with present limited experience to be an addition to the therapeutics of eczema.

Of the five cases of trichophytina, two were ringworm of the bearded region, and the remaining three of the scalp. Of tinea sycosis, both cases were of moderate degree: cure was effected in one case in three weeks; in the other the result was good, but it required a longer period to secure it. In the three cases of ringworm of the scalp, it seems to be on a par with most other remedies usually employed; while under observation (five weeks), they improved slowly. In these five cases of trichophytina, extraction of the hairs, although advised, was not sufficiently carried out. The strength of ointment used was 10 to 20 per cent.

In tinea versicolor, either as a lotion or ointment, resorcin has a curative action, but it is inferior to the common remedies employed.

Used side by side with hyposulphite of sodium, the latter is found to be much more rapid in its effect.

In painful leg ulcer, resorcin in some cases acts admirably. In five of the six cases recorded, pain was almost instantly allayed; and in one, a complete cure resulted. In four cases improvement was noted, but healing only progressed to a certain point. In the sixth case marked aggravation followed. It was employed in strength varying from 8 to 12½ per cent., the ointment kept constantly applied, renewing usually twice daily. In seborrhœa, and also in alopecia dependent upon this disease, good results may be, in some cases, obtained by employing an application similar to that recommended by Ihle, consisting of a drachm of resorcin, one to two drachms of castor oil, four or five minims of Peruvian balsam, and four ounces of alcohol. This should be employed every night, being well rubbed in, and the scalp shampooed every four or five days. While the result with this plan of treatment is not always positive, its action in a fair proportion of cases entitles it to favorable comment. In psoriasis, as also in sycosis, the drug seems practically valueless. In the single case of lupus erythematosus in which it was tried, there was no improvement. In one case of simple superficial epithelioma occurring on the nose it was used as a strong ointment, 40 per cent., and so far (two months after healing) the result has been good. In a second case in the same locality, and in a third case occurring about the ear, it was without effect. In a single case of favus of the scalp, in a boy of 15, resorcin was used faithfully for two months, apparently with little, if any, effect; the ointment used consisted of two drachms of resorcin and six drachms of lanolin.

Ichthyol—Employed in 8 cases of acne rosacea, 10 cases of acne vulgaris, 12 cases of eczema, 4 cases of furunculus, 3 cases of psoriasis, and 1 case each of lupus erythematosus and favus—total, 39. The cases of acne rosacea were of the ordinary type, redness being due more to simple stasis than to permanent enlargement or dilatation of the vessels. The strength of ointment used varied from 5 to 30 per cent. The stronger ointments proved too irritating in the majority of cases, and it was found that the strength generally suitable was 10 per cent. In one of the cases the result was good, marked improvement following within a few weeks after beginning treatment; in two cases the result was fair; in one other the improvement was slight; in the remaining four no change for the better occurred, and, in fact, in two

of these the disease was aggravated. In acne vulgaris the degree of usefulness was about the same as in acne rosacea: two cases were practically relieved, three somewhat improved; in three cases no change; and in the remaining two cases the disease was made worse. The strength of ointment varied from 5 to 50 per cent; the strongest applied to lesions only. In the average case, where the application was made to the whole face, a 10 per cent. ointment was employed.

In eczema, ichthylol, as was to be expected, was found applicable only to the squamous form. In vesicular and erythematous eczema, as well as the other acute and subacute varieties, it is irritating. Even in squamous eczema it has no positive beneficial effect. It was employed in this form in the strength of one or two drachms to the ounce. In furunculus, ichthylol in the form of a stiff ointment applied as a plaster proved valuable in two of the four cases, the beginning furuncles aborting, and those that had partly and fully matured becoming less painful, and healing satisfactorily. The strength of plaster used was 20 per cent. In the third case the application appeared to be beneficial. In the fourth case of this disease the effect was negative. In the three cases of psoriasis in which this remedy was used, in 30 per cent. ointment, the lesions were practically uninfluenced.

In the case of lupus erythematosus ichthylol was prescribed in ointment form, 10 and 20 per cent. strength, with slight improvement, but there was no positive effect. In the single instance of favus of the scalp the same case in which resorcin was tried, ichthylol was used as a 25 per cent. ointment for a period of three months, and at the end of that time it was difficult to say that the disease had been perceptibly improved.

Lanolin.—This ointment base, consisting of about seven parts cholesterin fat and three parts water, now well known, will probably win for itself general recognition. As with all new and costly remedies, it is not always easy to procure a thoroughly reliable preparation. Although lanolin (as introduced by Liebreich) should contain about 30 per cent. of water, a sample accidentally came under my notice lately with which it was impossible to incorporate the slightest additional amount of water, showing that complete saturation had been practised, or, in short, the sample apparently was made up of equal parts of cholesterin fat and water. In one instance, also, the specimen consisted of pure cholesterin fat, although labelled lanolin, there being an entire absence of water.

Cholesterin fat alone should, for obvious reasons, be the ointment basis (rather than the mixture with water), from which to prescribe; water or any other substance being added in the proportion circumstances might demand. This fat, as manufactured at present from, sheep's wool, has the strong sheep odor, disagreeable in the extreme but this, strange to say, is to a great extent lost when mixed with water, so that in lanolin the sheep's odor is not at first so noticeable, but when applied to the surface the heat of the body soon dissipates the water, and the disagreeable odor is developed. This odor is the main disadvantage of lanolin as an ointment base. Another disadvantage is its consistence, which may be obviated, however, by the addition of 20 to 30 per cent. of an ordinary fat. Within the past month Liebreich, in a note in the *British Medical Journal*, calls attention to an improved lanolin—lanolinum purissimum—in which the cholesterin ethers are entirely absent, and the consistence such that no addition of other fat is necessary.

It is now, I think, by various authorities proven beyond doubt that lanolin is more rapidly taken up by the skin than any other fat. This property is susceptible of clinical proof, and in this, therapeutically, is its great advantage. In acute inflammations, where merely a protective influence is the object, the property is undesirable, and in such cases, if ointments are used, cold cream, vaseline, or a mixture of vaseline and lard, is preferred. On the other hand, in cases of chronic eczema, psoriasis, and similar diseases, where there is thickening or infiltration, and a degree of penetration is desired, then lanolin is superior to the ordinary fats. In a few cases of an acute and subacute type the application of lanolin proved, for some reason, irritating.

In sycosis and the parasitic diseases lanolin was also used as the ointment base, and although, theoretically, it should be vastly superior, my experience so far has failed to prove any marked advantage in these cases over simple lard.—*Journal of Cutaneous and Venereal Diseases*.

COMPULSORY SWIMMING is suggested as a part of "education, both public and private." "Good exercise." "Excellent cold tonic," gives purity and improves nutrition. "Diminishes mortality from drowning." Many other advantages.—*Journal of Reconstructives*.

THE DIETETICS OF PULMONARY PHTHISIS.

By ALFRED L. LOOMIS, M.D.

Some of the most important rules which govern the dietetics of phthisis may be formulated as follows:

1. Every phthisical patient should take food not less than six times in the twenty-four hours. The three full meals may be at intervals of six hours with light lunches between.

2. No more food should be taken at any one time than can be digested easily and fully in the time allowed.

3. Food should never be taken when the patient is suffering from bodily fatigue, mental worry or nervous excitement. For this reason mid-day naps should be taken before, not after, eating. Twenty to thirty minutes' rest in the recumbent posture, even if sleep is not obtained, will often prove of more value as an adjuvant to digestion than pharmaceutical preparations.

4. So far as possible each meal should consist of such articles as require about the same time for digestion, or, better still, of a single article.

5. Within reasonable limits the articles of any one meal should be such as are digested in either the stomach or intestine alone, i. e., the fats, starches and sugars should not be mixed with the albuminoids, and the meals should alternate in this respect.

6. In the earlier stages the amount of fluid taken with the meals should be small, and later the use of some solid food is to be continued as long as possible.

7. When the pressure of food in the stomach excites cough, or when paroxysms of coughing have induced vomiting, the ingestion of food must be delayed until the cough ceases, or an appropriate sedative may be employed. In those extreme cases where every attempt at eating excites nausea, vomiting and spasmodic cough, excellent results are attained by artificial feeding through the soft rubber stomach tube.

8. So long as the strength will permit assimilation and excretion must be stimulated by systematic exercise, and when this is no longer possible the nutritive processes may be materially assisted by passive exercise at regular intervals.

The following may serve as a sample menu for a day in the

earlier stage. The meat soup is made by digesting finely-chopped beef (1 lb.) in water (Oj.) and hydrochloric acid (5 ℥.) and straining through cheese cloth.

MENU.

On waking.—One-half pint equal parts hot milk and vichy, taken at intervals through half an hour.

8 a. m.—Oat meal, with abundance of cream, little sugar; rare steak or loin chops, with fat, cream potatoes; soft boiled eggs, cream toast; small cup of coffee, two glasses of milk.

9 a. m.—Half ounce cod-liver oil, or one ounce peptonized cod-liver oil and milk.

10 a. m.—Half pint raw meat soup; thin slice stale bread.

11–12.—Sleep.

12 : 30 p. m.—Some white fish; very fine rice; broiled or stewed chicken; cauliflower; stale bread and plenty of butter; baked apples and cream; milk, Kumyss or Matzoon, two glasses.

2 p. m.—Half ounce cod-liver oil, or one ounce peptonized cod-liver oil and milk.

4 p. m.—Bottle Kumyss or Matzoon; raw scraped beef sandwich.

5 : 30–6 p. m.—Rest or sleep.

6 p. m.—Some thick meat or fish soup; rare roast beef or mutton; spinach; slice stale bread; custard pudding; ice-cream.

8 p. m.—Half ounce cod-liver oil, or one ounce peptonized cod-liver oil and milk.

9–30 p. m.—Pint iced milk; cup meat soup.

1–2 a. m.—Glass milk, if awake.—*Journal of Reconstructives.*

THE MILK TREATMENT.

By T. A. McBRIDE, M.D., of New York.

The patient is to use *skimmed* milk alone; no other kind of nourishment.

This must be taken slowly, and in small quantities, so that saliva

may be well mixed with it. The reaction of the milk to test paper must be neutral or alkaline.

The first week is the most difficult to get over, unless the patient has a strong will.

During the second week two ordinary quarts may be consumed during the day. The milk must be drunk four times daily ; at 8 a. m., at noon, at 4 and 8 p. m. The hours may be changed, but regular intervals must be maintained.

If the patient comply with these directions he will complain neither of hunger nor thirst, although the first doses appear so very small.

The daily quantity may be increased to eighty or more ounces.

If, after having attained this quantity or more, and the patient gets worse, diminish the amount to the quantity used the first week, and increase more slowly.

Constipation at the beginning is a good sign. This may be remedied by warm water injections, or by the use of castor oil, rhubarb, addition of sugar of milk to the milk, or by taking some bicarbonate of soda at bed-time. If the constipation be obstinate, a little coffee may be added to the morning dose of milk, or towards 4 p. m., stewed prunes or a roasted apple.

If, on the other hand, diarrhœa results, and rumbling of the bowels is frequent, the milk is too rich or is being taken in too large doses.

Feverishness is no contra-indication to its use. If the patient is very thirsty, he may drink Clysmic, Bethesda, Poland or Vichy Water. If he have a strong desire for solid food at the end of the second or third week, he may have a little stale white bread or toasted bread with salt in the morning and again at 4 p. m. Once a day he may have some soup made of milk and oatmeal.

After continuing this treatment for five or six weeks, it may be modified, by allowing the milk only thrice daily, and once a day steak or a chop. Raw meat digests most easily, and should be used in preference to the cooked when possible.

It may be necessary to add a little salt to the milk in some cases, and in others to have the milk drunk when very hot. If the patient become flatulent, buttermilk is often beneficial in small quantities.—
Journal of Reconstructives.

THE TREATMENT OF CHOREA BY CIMICIFUGA.

Dr. Hiram Corson, a veteran Pennsylvania physician, has again called attention in the *Medical and Surgical Reporter*, to the remedial virtues of cimicifuga in chorea. He affirms that he has used cimicifuga racemosa in every case which has come to him in more than fifty years, "and always successfully in a brief time." He recommends the fluid extract of the dried root in teaspoonful doses after each meal and a fourth dose at bedtime. Several cases reported by Dr. Corson were all speedily alleviated by the cimicifuga, and in one or two instances the duration of the disease would seem to have been materially abridged.

Dr. Corson is persuaded that none of the other remedies in general use for chorea (not accepting arsenic) have half the value of the black snake-root. Its effect is, he thinks, that of a "quieter of the general nervous system," and he has found it in half teaspoonful doses of the fluid extract a charming remedy for insomnia.

Ringer and Phillips regard cimicifuga as an excellent tonic of the nervous system, and especially suitable for cases characterized by failure of coördination.—*Boston Medical and Surgical Journal*.

TOOTHACHE from decayed teeth is said by Swiss authority to be relieved promptly by cotton-wool moistened with a mixture of equal parts of camphor and chloral and a fifth as much cocaine.—*American Druggist*.

MUSCULAR RHEUMATISM DUE TO THE USE OF TOBACCO.—I have met with a great many cases of muscular rheumatism due to the use of tobacco in some form, mostly in the shape of snuff placed under the tongue. All remedies are unavailing whilst the use of the weed was indulged in. Every practitioner, I think, on meeting with a case of the above disorder, should inquire as to the tobacco habit and correct it, if possible.—*Edward Anderson, M.D., in the Maryland Medical Journal*.

NOTES.

THE reviewer of Dr. MacLagan's work on rheumatism, in the *Therapeutic Gazette* of November, adds to the author's list of salicyl compounds the salicylate of ammonium, which, he says, theoretically meets the objections urged against the others, and is less likely to nauseate. It can be extemporaneously prepared by adding in solution fifty grains of carbonate of ammonium to sixty of salicylic acid. The result is a solution sweet in taste and syrupy in consistence.

WE clip the following from the *Salisbury Watchman*, to show how admirably nature can care for her fosterling away from the surgeons and without antiseptics: "A woodcock was killed near here this week which is a curiosity. The bird was discovered to have a reed about five inches long sticking through its body. The flesh and skin had healed around it and made it fast. It protruded nearly two inches from the breast and back of the bird, which was in good condition."

DR. JOHN R. QUINAN, of Baltimore, in a private letter to the editors, says of Dr. Satchwell's paper on malarious diseases, which appeared in the November number of the JOURNAL: "I endorse all his views to the letter, because my experience in regard to malaria in Southern Maryland for twenty-five years tallies with his, and I like the advice he gives to Southern men to study disease as they find it at home, and not trust so much to foreign teaching and imported theories. We are amply able to think and act for ourselves."

WASTED WIT.—We have received an anti-vaccination cartoon of the London Anti-vaccination Society, portraying a scene in which the vaccinator is a grim skeleton, inserting with grim satisfaction the potent virus. The mother holds her infant in her arms, while she looks with dismay, in appeal to the law in the person of a London policeman, who holds a placard with a sickly pun upon it in his hand: "Vaccination Act for the Jenner-ation of Disease." When the Canada folks secure an artist and give us the scene enacted on one of their trains, in which a fleeing, hypocritical anti-vaccination barangher from Montreal was discovered with an old vaccine scar and one freshly done, we would like to give place to both on our office wall.

THE Archives of Gynæcology, Obstetrics and Pædiatrics, New York, series of 1886, just completed, has met with such warm encouragement, the publishers have decided to issue monthly, and commencing January, the parts will so appear, instead of bi-monthly, as heretofore.

DR. MCKINNON, of Alabama, has found (*New York Medical Record*) that sulphate of quinine continuously given will reduce venereal desire, and in old age often destroy it entirely. He thinks that in gonorrhœal chordee, where there may be malarial complication, it is more useful in overcoming this distressing affection than camphor lupulin or the bromides. (There is a large quantity of the cinchona alkaloid given and taken hereabouts, but we fail to see the effect that Dr. McKinnon attributes to it as an anaphrodisiac. Nor has there been any decline in the price of baby-carriages because of an excess of them over the demand.)

THE LENGTH OF A STEP.—Dr. Gilles de la Tourette has recently published a monograph upon normal locomotion and the variations in the gait caused by diseases of the nervous system. He found, from a comparison of a large number of cases, that the average length of a pace is, for men, 25 inches, for women 20 inches. The step with the right foot is somewhat longer than that with the left. The feet are separated laterally in walking about $4\frac{1}{2}$ inches in men, and about 5 inches in women. The ataxic gait is characterized by an actual shortening of the pace coinciding with an apparent lengthening, and by a considerable increase in the lateral separation of the feet.—*Medical News*.

WE are gratified to know that the profession of North Carolina was so ably represented at the meeting of the Virginia Medical Society in Fredericksburg last month. Dr. W. T. Cheatham, of Henderson, was the delegate who wore the honors of the occasion. His speech at the banquet, in reply to the toast to the distinguished visitors, was most happily conceived, and entirely consistent with the Doctor's reputation as a physician of eminent attainments. We are always glad to know that the *entente cordiale* between the profession of the two States is in the keeping of such men as Dr. Cheatham, and we feel that he has done his part to discharge the obligation laid on us by the visit of Drs. Maguire and Edwards to the annual meeting of the North Carolina Medical Society in New Bern.

DR. J. SOLIS COHEN has noticed a peculiar perversion of the temperature sense of the tongue and oral cavity, caused by strong solutions of cocaine. While still capable of appreciating heat, the patient cannot recognize cold, and iced water seems of blood heat, or even warmer.—*Boston Medical and Surgical Journal*.

VENEREAL INFECTION PRONOUNCED A CRIME.—Some consternation may be caused among a certain class by a recent judgment of Justice Wills, of the Central Criminal Court, England. The charge against the prisoner was on two counts, one with having had carnal knowledge of an imbecile woman, aged eighteen, and another, under 24 and 25 Vict., c. 100, s. 47, for a "fraudulent assault" upon the same woman, occasioning her actual bodily harm. The harm done was the wilful infection with syphilis. The prisoner was found guilty on both heads, and sentenced to two years' imprisonment for the first, and five years for the second. The more remarkable piece of information is that a man who has immoral sexual connection with a woman, knowing himself to be suffering at the time from gonorrhœa or syphilis, is liable to prosecution and penal servitude.—*Medical Record*.

READING NOTICES.

W. H. WOLFORD, M.D., 2,634 State St., Chicago, Ill. :—I have used Peacock's Bromides in a number of cases with the best results, especially in epilepsy, one case in particular, C. S., a railroad man, having been compelled to quit work on account of the paroxysms coming on every day. After one week's treatment with Peacock's Bromides, the attacks were considerably lessened, now, after two months' treatment, he seems entirely cured and has resumed work. Any case where there is a nerve sedative indicated I can cheerfully recommend Peacock's Bromides.

—(o)—

INGLUVIN.—Ingluvin is a refined substance prepared from the ventriculus callosus gallinaceus, the gizzard of the domestic fowl, (*gans domesticus*). It is the essential principle of the gizzard, and bears the same relation to poultry that pepsin does to the higher animals. The diseases in which the use of ingluvín is indicated are indigestion in its various forms, known as dyspepsia, and for sick stomach or nausea caused by debility of that organ. It was originally discovered to be a remedy, indeed a specific, for vomiting in pregnancy; in this respect it stands above all other medicinal

agents. In all that is here set forth the manufacturers claim no more than is sustained by medicinal authority of the highest standard. Ingluvin is a powder of a yellowish-gray color, and may be prescribed in the same manner, dose and combinations as pepsin, 3 to 10 grains. The pulverulent form is considered more desirable, and it can be administered either dry or in water, milk or tea. In sickness and gestation the dose may be increased to 10 or 20 grains. Dr. Roberts Bartholow, who probably stands to-day as the greatest authority on *materia medica* in this country, speaking of ingluvin, says: "Ingluvin has the remarkable property of arresting certain kinds of vomiting—notably the *vomiting of pregnancy*. It is a stomachic tonic, and relieves *indigestion, flatulence and dyspepsia*. The author's experience is confirmatory of the statements which have been put forth regarding the exceptional power of this agent to arrest the vomiting of pregnancy. It can be administered in inflammatory conditions of the mucous membrane, as it has no irritant effect. Under ordinary circumstances, and when the object of its administration is to promote the digestive function, it should be administered after meals. When the object is to arrest the vomiting of pregnancy, it should be given before meals."

—(o)—

LACTATED FOOD IN DIABETES MELLITUS.—The following case will well illustrate the usefulness of the Food when applied to the treatment of this disease in its most aggravated form. A man 22 years of age had been suffering from headache, prostration, intense thirst and a voracious appetite for several months. Upon examination of him, in March last, he had all the above symptoms; had become too feeble to walk, and was practically confined to the bed. He was voiding 12 quarts of urine in 24 hours, which, upon analysis, showed a specific gravity of 1036—4 grains of sugar to the ounce. His thirst was intolerable, his appetite unnatural, craving starchy and saccharine food; was unable to sleep and obstinate constipation existed for several weeks. He was put upon Lactated Food and skimmed milk, allowed to drink all he wanted of these, but denied water or any other article of food. In 48 hours the quantity of water voided was reduced to 3 quarts. In one week his food and drink consisted wholly of Lactated Food and the general improvement in his symptoms was most marked. He continued on this diet for two months, and, so far as I could determine, all the prominent symptoms of Diabetes had disappeared. He was voiding but 1 quart of urine in 24 hours, spc. gr. 1016, bowels regular, could sleep without anodynes, had gained in strength and was walking about. At this time, six months after adopting this plan of treatment, he is at work, has no apparent symptoms of the disease, and is allowed to take a mixed diet, simply avoiding starches and sugars.

NORTH CAROLINA MEDICAL JOURNAL.

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AND PHOSPHATES,**

And various medications required in general practice, in the form of
ELIXIRS, SYRUPS, LIQUID, Etc.

SPECIAL NOTICE TO THE MEDICAL PROFESSION.

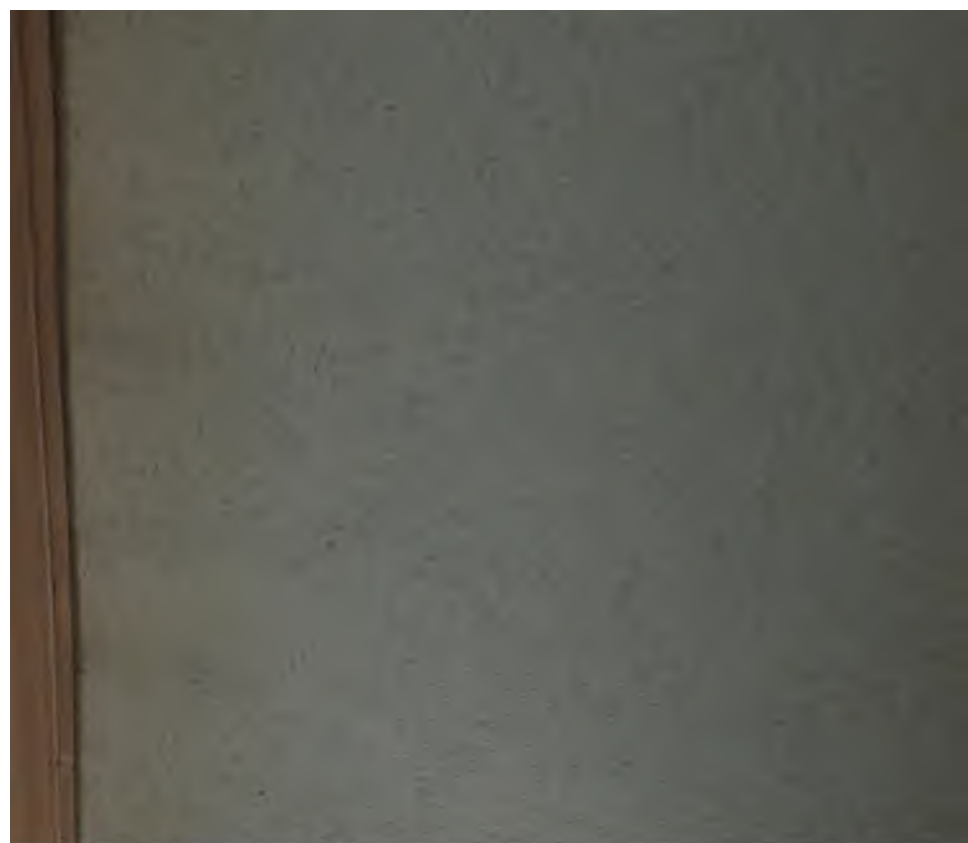
Whenever satisfactory results are not obtained from the administration of Lactopeptine, we will consider it a favor if such facts are reported to us, for there can be no doubt that substitution of Pepsin or some of the cheap imitations of Lactopeptine has been practiced, whenever the therapeutic activity of Lactopeptine is not uniformly demonstrated in its indications.

The New York Pharmacal Association









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